



# 1. Introduction

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This Response to Public Comments volume documents the public comments received on the Public Review Draft of the Environmental Assessment/ Environmental Impact Statement (EA/EIS) for the Cedar River Watershed Habitat Conservation Plan (HCP). Section 2 describes the public involvement and review opportunities provided throughout the development of the Cedar River Watershed HCP and throughout the EA/EIS process in compliance with the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). Section 3 presents an overview of the public comments submitted as part of the formal record during the public comment period. Section 4 contains a set of the most commonly submitted comments and questions received on the Public Review Drafts of the EA/EIS and HCP, and responses from the City of Seattle and the Services (U.S. Fish and Wildlife Service and National Marine Fisheries Service). It also contains a table listing the General Comment and Response number that applies to each speaker's testimony and to each letter received from an individual commenter. Section 5 contains detailed comments submitted by governmental agencies, the Muckleshoot Indian Tribe, and interest groups, as well as the associated responses from the City of Seattle and the Services. Section 6 contains a summary of the transcripts from oral testimony given during the public hearings. Section 7 contains references cited in this volume. Attachments A through H of this Response to Public Comments volume document the various notices, mailings, and other materials issued in support of the public comment period. Attachment I contains additional technical appendices warranted by public comments/responses that will be added to the Technical Appendix volume when it is reissued with the HCP.



## **2. Public Involvement and Review under NEPA/SEPA**

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The public involvement efforts conducted throughout the process to develop the HCP included information and education briefings for stakeholders, a SEPA/NEPA scoping process, release of the draft documents for public review, public workshops and public hearings, extension of the public comment period, and publication of this Response to Public Comments volume and the EA/Final EIS revised as necessary to respond to public comments.

### **2.1 Initial Information and Education Briefings for Stakeholders**

Throughout the HCP development process the City of Seattle has conducted an intensive outreach program to keep the public informed about HCP developments and to get feedback on the proposals under consideration. Prior to the signing of the Agreement in Principle (AIP) on March 14, 1997, over 50 presentations were given to stakeholders, including the region's wholesale water purveyors and public interests groups such as those representing environmental, recreational, and sportfishing concerns. Tours of the Watershed were also held with many of these groups to provide a firsthand look at the area being addressed by the proposed HCP. In addition, several mailings were sent to over 500 local residents in order to periodically keep interested citizens up to date on progress of the HCP.

Additional meetings were held with many different governmental agencies not directly involved in the negotiations that led to the AIP. Other outreach activities included a series of "roundtable" discussions held by City Councilmember Margaret Pageler to discuss HCP options with leaders of local interest groups. In order to get scientific involvement in development of the HCP, SPU also held workshops on specific issues, including bull trout and conservation biology (see Appendix 14 in the Technical Appendices volume for a list of dates and participants attending these workshops).

## 2.2 The Scoping Process

A copy of the AIP for the proposed Cedar River Municipal Watershed HCP dated March 14, 1997, was distributed to all King County and City of Seattle libraries prior to the scoping period. This document provided members of the public access to key background information concerning the proposed HCP.

After the release of the AIP, the City of Seattle and the Services conducted a joint scoping process to satisfy both federal and state requirements for public involvement in the preparation of the Public Review Draft EA/EIS. Elements of the scoping process for the EA/EIS included providing notice to the public of the proposed action, providing information to the public regarding the proposed action, and conducting formal meetings. At the meetings, the City of Seattle and the Services took oral and written comments.

The formal Notice of Intent (NOI) to prepare a SEPA EIS and Request for Comments on the Scope of the EA/EIS was prepared and a summary of the notice was published in the State SEPA Register on May 15, 1997. The NOI informed the public that the Services and the City of Seattle sought to gather public input for the preparation of the EA/EIS. The NOI briefly described the project background, issues, and applicable regulations. The NOI also announced three public scoping meetings, and invited agencies, affected Tribes, and members of the public to comment on potential issues to be evaluated in the EA/EIS before June 30, 1997. Finally, the NOI designated a project contact for anyone seeking further information.

The City of Seattle distributed a scoping mailer to more than 850 individuals on the project mailing list that consisted of a version of the NOI, supplemental information, and a scoping comment form. A series of legal notices and advertisements were published in regional and local newspapers to provide notice of the scheduled public scoping meetings. The following newspapers published advertisements or legal notices in 1997: *Seattle Daily Journal of Commerce* (May 16), *Seattle Times/Post Intelligencer* (week of May 19), *Snoqualmie Valley Record* (May 22), *Renton Reporter* (May 22), *South County Journal/Eastside Journal* (May 20), and *Voice of the Valley* (week of May 16).

### 2.2.1 Scoping Meetings

Scoping meetings were held in Issaquah, Seattle, and Renton to receive formal public comment on the proposed EA/EIS. The meetings enabled interested agencies, affected Tribes, organizations, and individuals to provide comments on issues that each believed should be addressed in the EA/EIS. These meetings also provided an opportunity to answer questions and to acquire public input on alternatives to the proposed action. Eleven people attended the Issaquah scoping meeting Tuesday, May 27, 1997, from 7 p.m. to 10 p.m. at the SAMBICA Country Kitchen Room on 4114 West Lake Sammamish Parkway S.E. Twenty people attended the Seattle meeting on Wednesday, May 28, 1997, from 7 p.m. to 10 p.m. at the Rotary Education Center at the Woodland Park Zoo on N. 50th Street and Fremont Avenue N. Twenty-five people attended the

Renton meeting on Thursday, May 29, 1997, from 7 p.m. to 10 p.m. at the Renton Community Center on 1715 Maple Valley Highway. The public meetings were scheduled in these three areas to attract comments reflecting a diversity of issues based on different affected and interested publics.

Upon entering the meeting rooms, participants completed a sign-in card with their name, mailing address, and e-mail address. The sign-in card also asked if attendees were planning to offer oral comment at the meeting and if they wanted to be added to the project mailing list. Before the meetings formally began, participants were free to look at a traveling display about the project and project area, and posters about the proposed HCP and EA/EIS timeline and process. Copies of the AIP, project handouts, and literature regarding related projects were available for review. Representatives from the City and the Services were available to answer questions.

Meetings were facilitated by Jim Freeman, the Senior Watershed Planner with the Cedar Falls headquarters office of SPU. Mr. Freeman greeted the attendees and introduced the agencies and staff involved in the HCP. Mr. Freeman provided the attendees with a summary overview of the project. Jim Erckmann, representative for the City of Seattle and Project Manager for preparation of the proposed HCP, presented a slide show on the proposal. Mr. Freeman then described the public involvement process and described the comments that the City and Services sought through these early meetings. The project timeline was explained and then public questions were answered by Services and City team members. Finally, individuals were invited to provide formal public comment. A court reporter recorded formal public comments, and questions and answers from each public meeting. Transcripts of these meetings were made available for review by appointment. When deriving the list of issues and alternatives to be considered, the City considered issues that were raised during question and answer sessions along with the formal comments.

### **2.2.2 Comments Received During Scoping Process**

During the scoping meetings, 32 individuals offered oral testimony. In addition, the City of Seattle received 72 written comments during the formal scoping period. A complete record of written comments is documented in the Scoping Report produced by SPU in August of 1997 (SPU, 1997a).

Potential environmental impacts and related issues that were suggested for analysis during the scoping process included:

- Geology and Soils
  - Examine the effects of new roadbuilding and use
- Water Quality and Quantity
  - Examine flows and their effects on water supply, fish and fish habitat, and groundwater

- Examine the effects of timber harvest on water quality
- Examine effects of spawned-out fish carcasses on water quality
- Examine effects of purveyor purchases and Seattle-Tacoma Intertie on supply
- Examine effects of vegetative encroachment on flooding
- Vegetation and Timber
  - Examine effects of timber harvest on riparian areas and residual wood
  - Define all terms used
- Fish and Fish Habitat
  - Examine effects on natural sockeye by employing a hatchery as mitigation
  - Examine effects of the proposed HCP on bull trout, steelhead, coho, chinook
  - Discuss use of hatchery in context of State Wild Salmonid Policy
  - Examine effects of flows on fish and fish habitat
- Wildlife and Wildlife Habitat
  - Examine effects of the proposed HCP on old-growth forest
  - Examine effects of the proposed HCP on habitat connectivity
- Tribal/Cultural Issues
  - Describe the effects of the proposed HCP on salmon as a Tribal resource protected by treaty rights
  - Explain how expanded diversion of water at Landsburg Dam is consistent with Federal responsibilities to the Tribes (especially the Muckleshoot), including Federal trust responsibilities
- Land Use
  - Analyze limiting urban development on banks of the Cedar River
- Recreation
  - Analyze effects of flows on recreation on the Cedar River
- Economics
  - Analyze effects of logging as a cost of implementation of the proposed HCP (i.e., the cost of reducing sedimentation and other protections of water quality)

Alternatives to the HCP proposal suggested during the scoping process for further evaluation included:

- Watershed Management
  - Include a “no logging” alternative
  - Include a “thinning only” alternative, which would phase out logging completely by the end of the 50 years

- Fish Mitigation
  - Remove the Landsburg Diversion Dam
  - Restore fish runs to historic population levels
    - Change the Hiram Chittenden Locks to enhance passage
    - Change water diversion location to above Cedar Falls
    - Pass all fish species at Landsburg Dam
    - Use hatchery to produce coho, chinook, and steelhead also
    - Utilize flows and other measures to support fish habitat in Walsh Diversion
- Flows and Water Supply
  - Use customer water conservation to enable higher annual flows
  - Consider context of regional water supply and increased demands over time to drive elements of Alternatives regarding flows and supply
  - Consider that minimum flows should not equal maximum possible quantities in river, and require caps on diversion quantities
  - Consider water supply alternatives (other than Cedar River)
  - Consider flows equaling those provided in WAC 173-508
  - Link population growth management to availability of water
- Funding
  - Consider alternatives to timber harvest as sources of funding revenue, including rate increases

## 2.3 Release of Draft Documents for Public Review

After the Scoping Process was completed, the City of Seattle prepared Public Review Drafts of the HCP and the EA/EIS with review and input from the Services. These documents, along with a Technical Appendices volume and a Resource Maps volume, were released for public review on December 10, 1998. This date marked the beginning of a 78-day public comment period, which was extended from an initial 60-day period through March 1, 1999. Elements of the public comment period for the EA/EIS included distributing the documents for public review, notifying the public that the documents were available, holding four informational workshops on the program, and holding two formal public hearings. Written comments on the HCP and the EA/EIS were accepted throughout the public comment period while oral testimony was recorded during the public hearings. A separate post office box address was established and publicized for EA/EIS written comments.

As soon as they were available, full sets of documents were distributed to members of the public and local libraries. These sets included the following five reports: (1) the Public Review Draft of the Cedar River Watershed Habitat Conservation Plan; (2) Public Review Draft of the Environmental Assessment/Environmental Impact Statement for the Cedar

River Watershed Habitat Conservation Plan; (3) Technical Appendices; (4) Resource Maps; and (5) Executive Summary of the Cedar River Watershed Habitat Conservation Plan and EA/EIS. Approximately 300 sets of these documents were sent to governmental agencies, public interest groups, and individual citizens upon request. In addition, copies were sent to 67 local libraries, including all King County and City of Seattle libraries, and selected University of Washington libraries. In addition to the full sets of HCP documents, libraries were also sent copies of the scoping report discussed above, copies of the technical reports prepared as part of the Watershed Assessment program discussed in the HCP, and proceedings from the technical workshops held during HCP development. See Attachment A for a document distribution list.

The formal Notice of Availability (NOA) of the EA/EIS document and request for public comments was prepared (Attachment B). A summary of the notice was published in the State SEPA Register on December 10, 1998. Notice was also published in the Federal Register on December 11, 1998 (Attachment C). Notices of Availability were mailed to over 1,000 individuals on the HCP mailing list maintained by the City of Seattle. The NOA informed the public that the Services and the City of Seattle sought to gather public comment on the Draft EA/EIS. The NOA briefly described the project background, issues, and applicable regulations. The NOA also announced two public hearings and invited agencies, affected Tribes, and members of the public to comment on the EA/EIS before the end of the public comment period, which was extended from February 11 through March 1, 1999. Finally, the NOA designated a project contact for anyone seeking further information.

A series of legal notices and advertisements were published in regional and local newspapers to provide Notice of Availability of the documents and to advertise the formal public hearings. The following newspapers published advertisements or legal notices during the week of December 10, 1998: *Seattle Daily Journal of Commerce*, *Seattle Times/Post Intelligencer*, *Snoqualmie Valley Record*, *Renton Reporter*, *South County Journal/Eastside Journal*, and *Voice of the Valley* (Attachment D).

## **2.4 Public Workshops and Public Hearings**

Four public workshops and two public hearing were held during the public comment period. The main purpose of the public workshops was to present background information on the Draft HCP, alternatives, and the EA/EIS. Formal comment was not accepted at these workshops. The workshops were also used to provide an opportunity for the Muckelshoot Indian Tribe and local interest groups to discuss different elements of the HCP proposal in a public forum and to take questions from the audience. A citizen summary mailing was sent to the City's HCP mailing list prior to the public workshops (Attachment E). This summary described the proposed HCP and alternatives.

Approximately 1,000 people attended the public workshops, which were held at the following dates, times, and locations:

Tuesday, January 5, 1999  
Program: 7:00 - 9:30 PM  
Open House: 6:00 - 7:00 PM  
CARCO Theater, Renton  
1717 Maple Valley Highway

Saturday, January 9, 1999  
Program: 9:30 AM - 12 PM  
Open House: 8:30 - 9:30 AM  
Bellevue Community College Theater  
3000 Landerholm Circle SE, Bellevue

Tuesday, January 12, 1999  
Program: 7:00 - 9:30 PM  
Open House: 6:00 - 7:00 PM  
Brockey Student Center, Room A  
South Seattle Community College, Seattle

Thursday, January 14, 1999  
Program: 7:00 - 9:30 PM  
Open House: 6:00 - 7:00 PM  
Kane Hall, Room 220  
University of Washington, Seattle

See Attachment F for a description of the public workshops and associated materials.

The two formal public hearings were held for the specific purpose of recording oral testimony on the EA/EIS and the Draft HCP in adherence to SEPA requirements. Summaries of the transcripts from oral testimony given during the public hearings are provided in Section 6.

Approximately 175 people attended the two public hearings which were held at the following dates, times, and locations:

Wednesday, January 20, 1999  
7:00 - 10:00 PM  
Education Center  
Woodland Park Zoo  
700 N. 50<sup>th</sup>  
Seattle, WA 98103



Saturday, January 23, 1999  
10:00 AM - 1:00 PM  
CARCO/Renton Community Center  
1715 Maple Valley Hwy  
Renton, WA 98055

See Attachment G for mailings and materials associated with the public hearings.

## **2.5 Extension of the Public Comment Period**

The original comment period for the EA/EIS was intended to run 60 days in duration from December 10, 1998, through February 10, 1999. In response to public comment, the City of Seattle and the Services extended the comment period an additional 18 days through March 1, 1999.

The City sent postcards to the complete mailing list announcing the comment period extension (Attachment H).

## **2.6 Response to Public Comments and EA/EIS Revision**

The City of Seattle and the Services reviewed comments received during the public comment period and are responding to these comments via this Response to Public Comments document and revisions to the EA/EIS, as appropriate. In addition, the City of Seattle Executive will make written recommendations to the Seattle City Council regarding changes to the Draft HCP in response to public comments. These recommendations will be the basis for a public hearing at the City Council and final City Council decisions regarding changes to the Draft HCP prior to its submission as a Final HCP to the Services.



## **3. Overview of the Public Comments Submitted**

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This section provides an overview of the public comments that were submitted during the public review process from December 10, 1998 to March 1, 1999.

### **3.1 Number of Comments Received**

Comments on the Draft EA/EIS were received as recorded oral testimony during public hearings and as written submittals (either letters or e-mails) throughout the public comment period. Public hearings were held on January 20, 1999, in Seattle and January 23, 1999, in Renton. Forty-eight people spoke at the Seattle hearing and 30 people spoke at the Renton hearing. Comments at these hearings were recorded by a court reporter and transcripts were prepared. A summary of the comments received during the public hearings is contained in Section 6. Approximately 280 letters and e-mails were received during the public comment period. These included comments from federal, state, and county agencies; cities; the Muckleshoot Indian Tribe; various interest groups; and the general public.

### **3.2 Process for Responding to Comments**

The comments received ranged from detailed scientific comments, to expressions of opinion on various issues, to comments that were essentially votes on different alternatives. To make this large number and wide range of comments more accessible, 64 “General Comments” with associated responses were developed that summarize the range of issues raised in both oral testimony and written comments. These General Comments and Responses are provided in Section 4. About 1,100 detailed comments were identified and read by the appropriate City of Seattle resource specialists and the Services, who prepared individual detailed responses. These detailed comments and their associated responses are provided in Section 5.

The oral and written comments of a more general nature from individuals and groups were also read to determine the nature of the comment. They were then categorized according to the 64 General Comments and matched up with the appropriate response. Section 4,

Table 4-1, lists the commenter name and the associated General Comment/response number(s). If a commenter's letter is not contained in Section 5, he/she may look up your name (alphabetically) in Table 4-1. To see how comments were addressed, a commenter may refer to the numbered responses to the General Comments in Section 4 that are identified for the comment letter.

### **3.3 Range of Comments Received**

Comments were received on a wide range of issues. The following summary identifies the issues by broad themes and indicates which General Comments address these issues. Many of the detailed comments can also be placed in these general categories, and responses to the detailed comments often refer back to a General Comment/Response number.

Comments related to these thematic issues:

- the HCP process and its adequacy—General Comments 1 to 3
- the SEPA and NEPA process—General Comments 4 to 6
- broad HCP issues such as the number of species addressed and the geographic area covered—General Comments 7 to 9
- Watershed Management Alternatives—General Comments 10 to 18
- Anadromous Fish Mitigation Alternatives—General Comments 19 to 34
- Instream Flow Alternatives—General Comments 35 to 53
- HCP implementation—General Comments 54 to 57
- water rates, HCP costs and allocations, and funding sources—General Comments 58 to 63
- regional water supply—General Comment 64
- preferences for one alternative or another—General Comments 11, 20, and 36

Comments on the Watershed Management alternatives related to these issues:

- logging and logging roads and their effect on water quality
- recreation in the watershed
- timber yarding methods
- effects on wildlife
- criteria for commercial and ecological thinning

Comments on the Anadromous Fish Mitigation alternatives related to these issues:

- effectiveness of the interim sockeye hatchery
- inadequate emphasis on non-introduced fish species
- adaptive management related to the sockeye hatchery

- sockeye mitigation goal
- effects of hatchery sockeye on native fish populations
- carrying capacity of Lake Washington

Comments on the Instream Flow alternatives related to these issues:

- natural river flow parameters
- effects of flooding
- request for a cap or moratorium on Cedar River water withdrawal
- water conservation measures
- increasing the water supply by using “dead storage” capacity of Chester Morse Lake
- IRPP (existing minimum) flows as an inappropriate baseline for comparison
- proposed instream flows to allow recovery of chinook and other salmon species
- effects of water withdrawal on water quality
- clarification of the City’s water claim on the Cedar River



## 4. General Comments and Responses

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This section contains responses to 64 of the most common questions and comments submitted during the public comment period. These 64 comments and their responses were prepared by City resource specialists and the Services after reading, evaluating, and synthesizing the concerns expressed in the written and oral comments received. The General Comments and Responses provide an efficient and effective means for addressing each commenter's concern(s). Many of the responses to the detailed comments in Section 5 refer to individually numbered General Comments and Responses. Table 4-1 (in Section 4.2) provides a cross-reference from general letters and testimony submitted by individuals and groups, to the appropriate General Comment and Response.

### 4.1 Comments and Responses

**General Comment #1: Habitat Conservations Plans (HCPs) do not promote the recovery of threatened and endangered species. More should be done by the City to promote species recovery. HCPs are not a good approach for managing endangered species. HCPs are not based on science.**

**Response:** The “take” of endangered species is prohibited by Section 9 of the Endangered Species Act (ESA). Congress amended the ESA in 1982 to provide a means for allowing the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (the “Services”) the ability to issue permits authorizing the “take” of listed species as long as the take is “incidental” to otherwise lawful activities, and as long as those activities are conducted in accordance with an approved HCP. Upon application, issuance of these “Incidental Take Permits” (ITPs) is required under Section 10 of the ESA as long as the specific criteria of the section are met. For the species covered by an ITP, each HCP must meet the following standards: (1) avoid, minimize or mitigate the impacts of proposed take to the maximum extent practicable, and (2) not appreciably reduce the likelihood of survival and recovery of the species in the wild.

The comments that HCPs do not “promote” recovery of species and that HCPs are not a good approach for managing endangered species appear to reflect a criticism of the mechanism created by Congress in Section 10 of the ESA to authorize continued incidental take of listed species, and the legal standards for such permits. The City suggest that such comments be directed to Congress.

However, the Services disagree with these comments, and believe that an HCP can provide an effective regulatory and management tool for the protection and conservation of both listed and other sensitive species on non-federal public and private lands. HCPs can be particularly effective in providing proactive, rational, and comprehensive species and habitat protection measures over a broad landscape, such as the 90,546-acre Cedar River Municipal Watershed. While HCPs are not required under the ESA specifically to “promote” recovery of listed species or expressly to provide for recovery, the Services note that they must be consistent with any federal recovery plan for a listed species, and, thus, “allow” for recovery. For example, this means that the Cedar River Watershed HCP must be consistent with the recovery objectives stated in the Final Recovery Plan for Marbled Murrelet.

Regardless of the many opinions on HCPs in general, the City believes that the proposed Cedar River Watershed HCP should be judged on its merits. The City believes that the proposed Cedar River Watershed HCP will, in fact, promote the recovery of species addressed in the plan. As indicated in Section 1.2 of the Environmental Assessment/Environmental Impact Statement (EA/EIS) and Section 2.4 of the Draft HCP, the City stated as explicit objectives to provide a net benefit for species addressed in the HCP and to contribute to the recovery of those species. These objectives exceed the legal standards for HCPs as described above. Furthermore, most of the 83 species addressed in the HCP are not even listed yet, so the “net benefit” objective should make a real contribution to countering any local population risks for many of these species.

The Services also disagrees with the comment that HCPs are not based on science. While the amount and quality of information varies among HCPs, the final No Surprises Policy requires that there must be sufficient scientific information to approve an HCP and issue an ITP.

The City believes Cedar River Watershed HCP, overall, is based on the best available science. The considerable scientific and technical information that was used in preparing the proposed plan was developed collaboratively with a number of public agencies over more than a decade, and input from agency, tribal, university, and independent scientists was an important part of the development of the plan. This information and its development are described in Sections 3 and 4 of the Draft HCP. In short, the City of Seattle and the Services believe the plan is grounded on credible science and, because the plan is subject to final Section 7 and Section 10 reviews, the Services believe at this time that the plan would provide substantial benefits to all of the species covered under the ITP.

Comments received regarding development of additional scientific information during implementation of the HCP will be given to the Seattle City Council for their consideration.

The City interprets the comment that more should be done by the City to promote species recovery to include both the activities covered by this Draft HCP and other City activities. As described in Section 1.2 of the HCP and Section 1.3 of the EA/EIS, this HCP covers the effects only of water supply and hydroelectric operations on the Cedar River, and land management in the Cedar River Municipal Watershed (for more information on activities covered by this HCP, please see response to General Comment #8 below). The City will respond, as appropriate, to any listing under the ESA that affects its other operations. For example, the City is now preparing a series of responses to the recent listing of Puget Sound chinook salmon as threatened under the ESA. The comment that the City should do more in the HCP will be given to City decision-makers for their consideration, and it is expected that the plan will be changed by City decision-makers to better promote recovery of species covered by the ITP. In addition, the City will strengthen the discussion and analysis of this issue in the HCP.

**General Comment #2: The “no surprises policy” should not be included as part of HCPs and related Implementation Agreements. These loopholes cannot be scientifically justified and would only result in undermining successful implementation of the ESA.**

Response: As with some parts of General Comment #1 above, this comment appears to criticize the federal government’s policies for HCPs in general. The City suggests that such comments be directed to the federal administration. The HCP and accompanying environmental review documents demonstrate that the legal standards established by Section 10 of the ESA, and the no surprises policy, have been met.

Furthermore, the Services believe that the no surprises policy is consistent with Congressional intent to provide regulatory assurances to non-federal other entities who, through the Section 10 ITP process, commit to undertake substantial conservation measures for listed and unlisted species. Under Seattle’s proposed HCP, the City would be committing to substantial conservation and management measures to protect covered species, which the Services believe warrant the long-term assurances to the City provided by the ITP. The adaptive management section the HCP (Section 4.5.7) provides flexibility, consistent with the no surprises policy, for responding to changes in information and conditions that may occur during the term of the HCP. The no surprises assurances do not negate the continuing legal obligation of both the City of Seattle and the Services to ensure that covered activities are carried out over the 50-year life of the ITP in a manner consistent with applicable laws and regulations.

**General Comment #3: “Changed circumstances” and “unforeseen circumstances” clauses should not be allowed in HCPs because these policies provide loopholes for the applicant to get out of plan requirements.**

Response: As is the case with parts of General Comments #1 and #2 above, part of this comment also appears to be a criticism of federal policy. The City suggest that such comments be directed to the federal administration. However, because these two provisions are dealt with expressly in this HCP, they are not “loopholes to get out of plan requirements.”

The final No Surprises Policy for HCPs (Fed. Reg. Vol. 63, No. 35, pp. 8859-8873) distinguishes “changed circumstances,” which can be reasonably anticipated, from “unforeseen circumstances,” which cannot be reasonably anticipated. It requires HCPs to explain how changed circumstances will be responded to, and how conservation measures will be adjusted accordingly, but limits the extent to which incidental take permit holders can be required to increase the scale of their efforts toward conservation in response to unforeseen circumstances, such as severe earthquakes.

Section 4.5.7 of the Draft HCP defines and provides responses for changed circumstances, such as a moderate forest fire or windstorm. However, both the City and Services would be greatly concerned with occurrence of unforeseen circumstances, such as a severe forest fire or an earthquake. For unforeseen circumstances, Section 4.5.7 states that the City intends to take whatever actions, including emergency actions, that it deems necessary and appropriate to protect water quality, infrastructure, and the environment in response to a severe environmental event or unexpected facility failure, and that the Services intend to use their authority under the ESA and other laws to protect species covered by the ITP. As described in Section 4.5.7, the Services may require additional measures of the City that are limited to modifications within the HCP’s operating conservation program for the affected species and that maintain the original terms of the conservation plan to the maximum extent possible. The Services may also provide additional mitigation.

**General Comment #4: Some commenters indicated that the federal National Environmental Policy Act (NEPA) document should be an Environmental Impact Statement (EIS) rather than an Environmental Assessment (EA).**

Response: The City of Seattle and the Services disagree with this comment. NEPA and SEPA environmental review requirements can be satisfied in a variety of ways, depending on the circumstances. The responsibility for determining the type of documentation to be employed in a given instance rests with the government agency(ies) whose action(s) trigger(s) the review requirement—in this case NMFS and USFWS for the federal government under NEPA, and the City of Seattle as the subdivision of state government



under SEPA. The single review document which was prepared in this instance was called an EA, for purposes of NEPA, and an EIS, for purposes of SEPA. The Services determined that an EA satisfied legal requirements, and was consistent with their policies, since the suite of conservation measures proposed by the HCP and related agreements has been designed to fully mitigate any potential impacts resulting from issuing an ITP. Regardless of the label, the environmental review conducted for this HCP has been extremely thorough, and has met all legal requirements. The City conducted an expanded scoping process, the review document addressed all of the matters required in a federal EIS (it was an EIS under analogous state law), and a 78-day public comment period was provided.

**General Comment #5: Some people indicated that the duration of public comment period was not long enough. Some specifically requested a 90-day extension of the 60-day public comment period.**

Response: The Draft EA/EIS for the Cedar River Watershed HCP is intended to fulfill the requirements of both the Services' public review policy for HCPs under NEPA and SEPA. This document was originally released on December 10, 1998. This date marked the beginning of the announced 60-day public comment period, which was 15 days longer than required by either NEPA or SEPA. Due to requests from the public during the public hearings and workshops, the City of Seattle and the Services extended the public comment period an additional 18 days. Written comments were accepted through March 1, 1999. The City of Seattle and the Services believe that the 18-day extension provided a reasonable compromise between requests for extensions and requests to minimize delays in the process.

**General Comment #6: The City's planning objectives are not appropriate. The ultimate goal or objective of the HCP should provide maximum protection and recovery of the species covered by the plan. The HCP lacks a vision of the Watershed beyond how it can be utilized for profit. The Watershed is seen as a "resource" to provide water, timber, and salmon for us.**

Response: This comment expresses an opinion about the City's planning objectives, which were approved by the Seattle City Council. It does not address the adequacy of the environmental review documents or express a preference for one of the alternatives. Instead, it criticizes the City's stated objectives. These planning objectives are presented in Section 1.2 of the Draft EA/EIS and in Section 2.4 of the Draft HCP. The City of Seattle strongly disagrees with the statement that these objectives are inappropriate. The objectives established for this planning effort are intended to balance the needs of providing a clean and reliable drinking water supply to the region with the needs of protecting fish and wildlife resources. They are intended to meet, and exceed, the legal requirements of the ESA for the species addressed in the HCP, to address public concerns with HCPs in

general, and to provide for sustainable management of ecosystems in the Municipal Watershed.

The City believes that collectively these objectives provide a clear vision for responsible management, which includes the protection of fish and wildlife. While HCPs are not required to provide “maximum protection and recovery of the species” covered by the plan, the City and Services believe that this HCP does provide a net benefit to all species and make a substantial contribution to the recovery of those species that are listed under the ESA (see response to General Comment #1 above).

**General Comment #7: Comments varied on the adequacy of the number of the species covered by the plan. Some people thought that fewer or more than the 83 species proposed for coverage should be addressed. Commenters also indicated that take of these species was not adequately defined. For example, one commenter suggested the HCP should cover plants and fungi species. Other commenters indicated that the enhancement of the Cedar River sockeye salmon population is a separate issue from the HCP because sockeye are an introduced species and would not be listed under the ESA.**

Response: In developing the list of animal species addressed in the HCP (Section 1.4 of the draft EA/EIS), the City consulted regional experts and biologists with the Services to identify those species that were currently listed under the ESA or were at sufficient risk regionally that they might be listed under the ESA in the future (see Section 3.4 of the Draft HCP). A total of 83 species of animals are proposed for coverage, including all six species currently listed as threatened or endangered and 77 unlisted species that could be listed as threatened or endangered during the 50-year term of the HCP. This list of species includes resident and anadromous fish, and a variety of amphibians, birds, mammals, and invertebrates. All of these species are known to use or could potentially use the types of habitat that are found within the geographic area covered by the plan or that could be influenced by the activities covered by the plan.

The City and the Services believe that the list of species addressed in the Draft HCP is a comprehensive list of species that could be listed under the ESA and for which sufficient information potentially exists for inclusion on the ITP. In conducting the required biological assessment for each species addressed in the HCP, the Services will review this list and make a final determination as to which of these species to include on the ITP. While Section 9 of the Endangered Species Act includes regulations regarding endangered plants, the Section 9 prohibitions against “take” of endangered fish and wildlife do not apply to endangered plants, including fungi. Thus no ITP is required, or can be issued, for plants. Although plants are not expressly included as part of the Cedar River Watershed HCP, Section 3.3 of the Draft EA/EIS provides information on state and federal endangered and threatened plant species. Potential environmental consequences for these plant species as

a result of implementation of all five Watershed Management alternatives are discussed in Section 4.3.4 of the EA/EIS. Impact analysis indicates that effects of the HCP proposal on rare plants would be minor.

Section 10 of the ESA specifies that an HCP must specify the impacts of any “take.” The Services’ Habitat Conservation Planning Handbook specifies that take may be estimated in terms of either the number of animals expected to be taken or the habitat affected. The effects of activities covered by the HCP, including the proposed mitigation and conservation measures, are described in Sections 4.2, 4.3, 4.4, and 4.6 of the Draft HCP, and in the EA/EIS largely in terms of effects on habitat. These analyses were performed with consideration of the definitions of “take” promulgated in the Code of Federal Regulations (CFR) by the Services.

Section 10(a)(2)(A) does not require that any specific amount of incidental take be quantified. It merely requires that in order for activities to be permitted, a conservation plan must specify “the impact which will likely result from” incidental taking associated with the activity, and must also specify the steps to be taken to “minimize and mitigate such impacts” to the maximum extent practicable. After the City decides on the final set of conservation measures to include in the HCP, the Services will analyze whether the City’s proposed HCP satisfies these requirements, along with the other provisions of Section 10. Pursuant to their own regulations, the Services will describe the authorized take of all covered species in the ITP, based on the biological opinions being prepared for the HCP. This determination will be made by the Services for the final HCP, after any modifications by the City pursuant to public comments.

It is recognized that the Cedar River Sockeye Salmon population is unlikely to be listed under the ESA, because this run of sockeye has been introduced to the Lake Washington Basin from the Baker River, which is part of the Skagit River Watershed. During the term of the HCP, however, the NMFS could change its initial decision regarding the ineligibility for listing of the Cedar River sockeye stock (Fed. Reg. Vol. 63, No. 46, pp. 11749-11771). Although this stock is unlikely to be listed, Cedar River sockeye are included for coverage in the HCP as part of a comprehensive mitigation program for the barrier created by the Landsburg Diversion Dam, largely to respond to issues under Washington State law (see Section 4.3 of the HCP). This mitigation program includes a sockeye hatchery and a monitoring and adaptive management program designed to avoid and minimize any impacts that the hatchery might have on listed and other species. Potential impacts of operation of the hatchery are evaluated in the EA/EIS and addressed by the HCP, and will be provided for under the ITP.

**General Comment #8: Commenters raised questions over the geographic area and activities covered by the HCP. They felt the plan should address additional activities such as diking in the Cedar River below Landsburg, opening up of the**

**Cedar River floodplain, the Hiram Chittenden (Ballard) Locks, and fish harvest management. Some commenters asked whether water supply operations such as Lake Youngs and the distribution pipelines are covered activities under the proposed HCP.**

Response: Section 10 of the ESA allows the person or entity who may engage in incidental take to define the scope of activity they wish to have covered by a permit. These comments reflect disagreement concerning the scope of the City's objectives in preparing an HCP, indicating that the commenters would have preferred to see a broader, even regional, approach, pulling activities conducted by other public and private entities into a single plan. This point of view will be provided to decision-makers, but needs no response in the environmental review documents.

For clarification, the geographic area to be covered in the ITP is defined in Section 3.3 of the Implementation Agreement, and the activities to be covered are defined by Section 3.2 of the Implementation Agreement. Further discussion of these activities is given in Sections 1.2, 1.3, and 4.2.2 of the Draft HCP. The proposed HCP does not address activities such as diking in the Cedar River below Landsburg, operation and maintenance of the Ballard Locks, or harvest management of sport or commercial fisheries, because they are under the control of other agencies.

However, some of the conservation and mitigation measures do apply to some of these activities as they may be appropriate in relation to City of Seattle responsibility. For example, the HCP provides funding for habitat restoration and protection on the Cedar River downstream of the Landsburg Diversion Dam (see Section 4.3 of the Draft HCP), and local-match funding for improvements at the Ballard Locks designed to increase survival of fish passing through the locks (see Section 4.4 of the Draft HCP). The operation of Lake Youngs and the transmission pipeline to the west of Landsburg are not covered by the HCP. The Draft HCP will be modified to make this exclusion clearer.

**General Comment #9: Some commenters suggested that because the Cedar River below Landsburg has adequate high quality spawning habitat, consideration should be given to other factors. These other factors include predation by marine mammals and other species, the high seas fishery, over-commercialization in the inner Puget Sound, and uncontrollable natural events such as flooding.**

Response: The activities covered by the proposed HCP are discussed in the response to General Comment #8 above. Other factors that may be affecting fisheries resources, such as marine mammal predation, commercial fishing operations, and uncontrollable natural events, lie outside the control and jurisdiction of the City of Seattle, and are not impacts resulting from the proposed HCP.

**General Comment #10: Some commenters questioned whether the correct No Action Alternative was chosen for analysis of watershed management options. Some commenters raised the issue as to whether minimum Forest Practices Act was the appropriate standard for timber harvesting. Some commenters felt that it was not appropriate to assume a 58 percent reserve in the No Action Alternative.**

Response: Under NEPA and SEPA, the No Action Alternative is defined as no change from current management direction or level of management intensity.

The No Action Alternative for Watershed Management is described in Section 2.3.1 of the Draft EA/EIS, which explains what is likely to occur in the Cedar River Municipal Watershed if the City of Seattle decided not to prepare an HCP and secure an ITP. Under this alternative, it is assumed that the City would continue to implement the existing ordinance establishing City policies for watershed management (City of Seattle Ordinance No.114632, for more detail on Secondary Use Objectives see Section 2.3.11 of the Draft HCP). In addition to confirming the primary purpose of managing the Municipal Watershed for high quality drinking water, the policies also provided management direction which included an increased focus on fish and wildlife protection, public education, and scientific research. One of the secondary use policies provided direction to establish an ecological reserve which covered between 50 and 65 percent of Watershed lands owned by the City in 1989.

The creation of the proposed 58 percent reserve area in the No Action Alternative represents a combination of the secondary use policies and deed restrictions which were placed on lands acquired by the City of Seattle from the U.S. Forest Service after adoption of the policies. In 1989, the City of Seattle owned approximately 71,332 acres or 81 percent of the total Watershed land area. In constructing a likely reserve scenario for the No Action Alternative, it was assumed that the low-end of the reserve range recommended by the secondary use policies would be implemented. As a result, 35,666 acres or 50 percent of the land area owned in 1989 was included in the No Action reserve as a starting point. In addition to these acres, lands with deed restrictions acquired from the U.S. Forest Service were added to the No Action reserve scenario based on recommendations from local environmental interest groups. This combination created an ecological reserve for the No Action alternative covering 58 percent of the Watershed land base for a total reserve size of 51,657 acres. For more information, see Map #13 in the Resource Map Document for the Draft HCP and EA/EIS.

Utilizing the 51,657 acres, the design of the No Action Alternative reserve focuses on protecting water quality and maximizing habitat benefits to the species of concern within the size limit constraints. Major features of the design include: all existing old-growth forest with 200-foot buffers; all streams with buffers ranging from 100 to 300 feet; all wetlands with buffers ranging from 100 to 300 feet; all known riparian habitat; and other resources.

Under the No Action Alternative, commercial harvesting would not be allowed within the ecological reserve. As a result, the commercial harvest of timber would be limited to non-reserve lands covering approximately 42 percent of the land base. It was further assumed that any logging that might occur on non-reserve lands would be conducted pursuant to regulations implementing the state Forest Practices Act, since those are the regulations which currently govern this activity.

**General Comment #11: Many commenters stated a personal preference for individual alternatives such as no commercial logging, no commercial logging but restoration thinning, or for commercial logging. Some commenters felt that the no logging alternative should be directly part of the HCP as opposed to a local implementing ordinance as discussed during public workshops. Comments in support of no logging included:**

- **It is the best approach for clean water.**
- **It would leave a forest legacy for future generations.**
- **No logging allows for the opportunity to have an unfragmented landscape within the Watershed.**
- **If recreational use of the Watershed is too risky for water quality, then logging must be too risky as well.**

**Comments in support of logging included:**

- **It eases the transition to paying full costs of water consumption.**
- **Certain silvicultural practices (e.g., thinning) would increase the rate at which old-growth forest characteristics would be reached.**
- **Historical harvest has not degraded drinking water quality, therefore the level and type of proposed harvest in the alternatives should not be expected to degrade water quality in the future.**

Response: As noted in Section 2.3.1 of the Draft EA/EIS, the alternatives considered in the environmental review document were intended to cover the full range of watershed management issues and provide a wide decision space for decision-makers. Individual preferences for different Watershed Management alternatives have been noted. The impacts referenced in these comments were evaluated in the EA/EIS. Comments concerning the substantive merits of the various alternatives analyzed in the EA/EIS will be provided to decision-makers. Information on public preferences will be made available to the Seattle City Council for their consideration in making decisions regarding changes to the HCP prior to final submission to the Services as part of the City of Seattle's ITP application.

**General Comment #12:** Several people commented that the total mileage of forest roads in the Cedar River Municipal Watershed should be reduced. However, the amount of roads recommended for decommissioning varied among commenters. Some people suggested a specific road mileage that should be decommissioned, or “abandoned,” or specific target road densities (e.g., 2 miles per square mile). Several people commented that no new roads should be built and all existing roads should be decommissioned. Others suggested that all roads should be decommissioned except those needed for maintenance and fire control. Some people suggested that restoration money should be spent reducing roads rather than for other activities.

Response: The HCP proposes a significant level of effort for measures designed to improve drainage patterns that have been altered by roads in the Watershed, with the objective to reduce sediment loading to streams. These measures, including road decommissioning, are described in Section 4.2.5. Under the proposed HCP, road deconstruction and minimization of new road construction is expected, over time, to reduce net active road miles in the Cedar River Watershed. Unforeseen events could require construction of additional road miles for emergency response, but the City has committed in the HCP to no net increase in road miles. The actual reduction in road miles has not been estimated; it would depend on prioritization of decommissioning and engineering improvements to roads, and the relative allocation of funds to each of these to produce the greatest reduction in sediment loading to streams.

The environmental analysis in the EA/EIS related to road decommissioning was based on the assumption that the road improvement and decommissioning program in the Draft HCP would produce an overall, long-term, environmental benefit. More road decommissioning related to a reduction in the rate of timber harvest would simply increase the environmental benefit of decommissioning, and the City would have to ensure that roads essential to Watershed protection were retained. However, such an increase in road decommission would also take money from other activities, many of which are critically important to meeting the stated objectives of the HCP, require additional funding, or entail a combination of both funding mechanisms. The comments as to whether to decommission more roads in the Watershed will be provided to the Seattle City Council, in conjunction with comments on the level of timber harvest, for their consideration regarding potential changes to the HCP (see General Comment #8 above).

**General Comment #13:** Some commenters suggested that either all or a portion of the Watershed could be opened to recreational activities such as hiking and skiing. Educational activities could also occur in the Watershed so people could see and learn about its forest legacy.

Response: These comments are not relevant to the proposed action, which is adoption of an HCP, which specifies measures to be taken to protect species and habitats. However, the comments will be provided to decision-makers.

As discussed in Section 3.8 of the EA/EIS and Section 2.3 of the Draft HCP, the Cedar River Municipal Watershed is currently closed to unsupervised public access, including recreational activities, except at the Rattlesnake Lake recreation area and Landsburg Park. This closure of the Watershed and the related surveillance activities are key parts of the City's Watershed Protection Program aimed at protecting the unfiltered, surface water supply provided by the Cedar River. Closure of the Watershed to unsupervised public access was strongly supported by the public in a comprehensive review of watershed management completed in 1989. The recommendations of a broad-based advisory committee were adopted in 1989 by the City Council under Ordinance #114632, confirming the importance of protecting one of the major sources of the region's water supply by continuing the policy of closing the Watershed to unsupervised public access. Development of an effective public education program in the Watershed and construction of an interpretive center at Cedar Falls were included in the committee recommendations and the City ordinance. As part of the education program, SPU currently brings more than 10,000 adults and children into the Watershed, providing information on environmental stewardship, Watershed protection, and water conservation. Construction of the interpretive center is scheduled to begin within the next year. Individuals and groups are encouraged to contact SPU for information on the education program.

**General Comment #14: Several people commented that alternative yarding methods such as helicopters, balloons, or blimps should be investigated for commercial logging in the Watershed. The use of alternative yarding methods would eliminate road building.**

Response: The constraints on timber harvest that would be required as part of the proposed HCP, including different silvicultural methods, are discussed in Section 4.2.4 of the Draft HCP and in Technical Appendices #13 and #16. In general, the Watershed Assessment Prescriptions in Technical Appendix #16 outline the conditions under which different yarding methods, including use of helicopters, can occur. For example, Watershed Assessment Prescription HSEH-6 requires full suspension or helicopter logging for timber harvesting on all sites outside the reserve with slopes averaging greater than 70 percent. Prescription HSEH-5 requires one-end, suspension logging for all sites designated as high and very high hazard surface erosion areas with slopes averaging from 30 to 70 percent. The City has committed in the proposed HCP to a net reduction in road miles, and estimates that construction of short road spurs, most of which will be temporary, would total no more than 10 miles over 50 years. Comments concerning timber harvest and roads are also discussed above under General Comments #11 and #12.



**General Comment #15: One person commented that commercial mushroom harvesting should be substituted for commercial logging in the Watershed.**

Response: As mentioned in General Comment #13 above, the Watershed is closed to unsupervised public access. Preliminary evaluations conducted by Seattle Public Utilities indicate that alternatives for generating revenue from the Watershed, such as commercial bough sales or commercial mushroom harvesting, would not be economically feasible. As a result, these activities could not be used as a substitute for commercial logging if the City Council decides not to harvest timber to fund implementation of the proposed HCP. For more information about funding the HCP, please see the responses to General Comments #57 and #58.

**General Comment #16: The effects of timber harvest and roads on water quality would be negative. Fine sediment would clog spawning gravels and there would be a reduction in large woody debris which creates habitat for fish.**

Response: The City of Seattle and the Services believe that the potential environmental consequences for water quality and fisheries resources are adequately discussed in Sections 4.1, 4.2.1, and 4.4.1 of the EA/EIS and Sections 4.2 and 4.6 of the HCP. Overall, there is not expected to be any significant impacts on water quality or fisheries resources from any of the Watershed Management alternatives.

**General Comment #17: Logging would have detrimental effects on wildlife. Logging would reduce and fragment habitat. Logging would also reduce the amount of low-elevation old-growth forest that could develop over time.**

Response: The City of Seattle and the Services believe that the potential environmental consequences for wildlife from timber harvesting and related road management activities are adequately discussed in Sections 4.3 and 4.5 of the EA/EIS. In addition, an analysis of the effects of activities allowed under the HCP on individual wildlife species is presented in detail in Section 4.6 of the Draft HCP. The City of Seattle and the Services disagree that the level of timber harvest allowed under the proposed HCP would have detrimental effects on wildlife populations. To the contrary, fragmentation across the landscape caused by past timber harvesting will be reduced over the 50-year period of the HCP. In addition, the amount of forest 80 years and older in the Watershed is expected to increase from approximately 15,000 acres today to almost 60,000 acres by the end of HCP implementation. Comments regarding the level of timber harvest are also discussed above under General Comment #11.

**General Comment #18: Some commenters felt the Draft HCP and EA/EIS should identify the criteria to be used for ecological and commercial thinning. Some commenters felt that the environmental consequences of these actions could not be evaluated without this information.**

Response: The City of Seattle and the Services believe that the environmental consequences resulting from different types of thinning in the Proposed HCP Alternative are adequately addressed throughout Chapter 4 of the EA/EIS and in Sections 4.2 and 4.6 of the Draft HCP. In general, no significant environmental effects are expected from these activities. The methods, benefits, effects, and criteria for the restoration thinning and ecological thinning proposed in the HCP, including restoration thinning, ecological thinning, precommercial thinning, and commercial thinning are described in detail in Sections 4.2.2 and 4.2.3. The methods, benefits, effects, and criteria for the proposed precommercial thinning and commercial thinning are described in Section 4.2.4. The landscape-level effects of these combined silvicultural approaches are discussed in Section 4.2.5 of the HCP in the context of community-based strategies. As indicated in the EA/EIS, site-level impacts are expected to be minor and short-term, whereas the benefits are expected to be long-term improvement in forest habitat conditions over the Watershed landscape.

Because of the very high variability among stands in the Watershed, the City and Services believe that site-specific prescriptions are needed for all these types of thinning, and that generally applied, numeric criteria for such operations are inappropriate. In lieu of such numeric criteria, the City provided biological objectives intended to constrain these activities so that they would produce the desired habitat benefits. In addition, there will be public oversight of Watershed activities under the HCP (see Section 5.4 of the Draft HCP). As specified in section 4.2.2 of the HCP, the City will also consult with the Services regarding the best ways to minimize site impacts of such thinning and best achieve the stated biological objectives, and will utilize interdisciplinary teams for project design.

**General Comment #19: Some commenters felt that the elements of the No Action Alternative for anadromous fish mitigation were not appropriate. They felt the No Action Alternative should assume that mitigation would be implemented immediately for the Landsburg blockage.**

Response: Under NEPA and SEPA, the No Action Alternative is defined as no change from current management direction or level of management intensity. For the Anadromous Fish Mitigation component of the HCP, the No Action Alternative is intended to describe the current and likely future activities that would be pursued by the City of Seattle to resolve issues related to the blockage caused by the Landsburg Diversion Dam without an HCP and without a corresponding ITP.

City of Seattle Ordinance #115204 provides direction for Seattle Public Utilities to negotiate a comprehensive solution to the Landsburg blockage with state, federal, and tribal agencies (new Technical Appendix 31; see Attachment I of this document). The ordinance further directs that, prior to construction of final mitigation facilities, the City Council must approve a comprehensive mitigation settlement with the Washington Department of Fish and Wildlife (WDFW), NMFS, USFWS, and the Muckleshoot Indian Tribe. The ordinance prescribes no time line for reaching a comprehensive settlement. Thus, under the No Action Alternative, SPU would continue to seek a comprehensive settlement agreement, but would not be authorized to proceed with implementation of mitigation until such agreement had been reached with the designated federal, state and Tribal agencies and approved by the City Council. Funding for the existing interim hatchery, though uncertain, would probably be continued at a cost of approximately \$256,000 per year as prescribed by a previous 5-year Memorandum of Agreement between the City and the WDFW and as approved by the Muckleshoot Indian Tribe (Technical Appendix 2). SPU would not be authorized to provide funding for fish passage facilities, or downstream habitat restoration or protection projects. Under the No Action Alternative, the City of Seattle would respond to the individual listings of species as threatened or endangered on a case-by-case basis.

**General Comment #20: Many commenters indicated a preference for individual Anadromous Fish Mitigation alternatives. For example, some were opposed to building the permanent sockeye hatchery, some were in support of constructing the facility, while others were in favor of deferring the decision on a hatchery until additional studies had been completed. Commenters felt that additional studies related to the effects on chinook salmon were particularly important.**

**Comments favorable to the hatchery included:**

- **The hatchery is an appropriate means to supplement the fry population during years of high river flooding that scours spawning beds.**
- **The hatchery is the best approach to obtain sport and commercial fishing opportunities. More people can sportfish Lake Washington than Puget Sound because of more benign boating conditions. An in-lake, near-city salmon sport fishery is unique.**
- **With the current rate of decline in sockeye populations, further delay of the sockeye hatchery could increase the risk of losing the opportunity for a sockeye fisheries in Lake Washington**
- **Sockeye enhancement is mandated by state law to mitigate for the migration barrier created by the Landsburg Diversion Dam; not to mitigate for downstream habitat losses.**
- **Sockeye fry provide forage for other salmon.**

- With the combined contribution of past and future evaluation of the performance of the interim sockeye hatchery, sufficient information will be available to adaptively manage the program on schedule.

**Comments unfavorable to the hatchery included:**

- The money for the hatchery should be spent on downstream habitat restoration for wild fish, particularly chinook, coho, and steelhead.
- One person opposed the funding of alternatives designed to increase sportfishing opportunities.
- Hatchery fish could spread disease to wild fish and cause competition for food.
- Wild fish are ecologically and genetically in harmony with the native habitat.
- Staff housing and parking would be environmentally regressive.
- Hatchery dollars would be better spent on habitat, moving dikes, and removing structures that are flood-prone.
- A hatchery would affect natural flows and introduce sickly unnatural salmon runs.
- Brood collection activities could disrupt the spawning migration of chinook and naturally spawning sockeye and coho.
- The hatchery program poses a significant risk to the genetic integrity and distinctness of naturally spawning sockeye populations in the Cedar River and Bear Creek.
- Cedar River sockeye are an introduced stock of fish and therefore do not warrant the commitment of resources proposed in the HCP.
- The carrying capacity of Lake Washington is likely insufficient to support additional sockeye production.
- Increasing the frequency and magnitude of sockeye harvests in Lake Washington increases the risk of overharvesting naturally reproducing chinook and sockeye salmon.

**Comments in favor of deferring the hatchery decision included:**

- It would allow time for additional studies on possible effects on chinook salmon.
- It would allow time to evaluate the otolith data currently being collected to evaluate the success of the interim hatchery program.
- It would allow time to collect more information on related issues such as the carrying capacity of Lake Washington to support sockeye fry.

Response: Individual preferences for different Anadromous Fish Mitigation alternatives have been noted. A wide range of opinion was received throughout the public comment period. Please refer to Section 4.3.2, 4.3.3 and 4.5.3 of the Draft HCP for a discussion of managing risk and uncertainty with the proposed sockeye hatchery.

The preferences for different Anadromous Fish Mitigation alternatives will be made available to the Seattle City Council. The City Council will consider these preferences in light of the discussions of managing risk and uncertainty described in Sections 4.3.2, 4.3.3, and 4.5.3 of the Draft HCP and Section 4.5 of the EA/EIS when deciding what final Anadromous Fish Mitigation proposal to submit to the Services as part of the City of Seattle's ITP application.

As noted in Section 2.3.2 of the Draft EA/EIS, the alternatives considered in the environmental review document are intended to cover the full range of issues for anadromous fish mitigation and provide a wide decision space for decision-makers ranging in scope from the full-scale sockeye hatchery as proposed in AFM-2 to the all downstream habitat restoration alternative described by AFM-5.

**General Comment #21: Some commenters wanted clarification concerning what information on the effectiveness of the interim hatchery would be available before construction of the full-scale facility under the Proposed HCP Alternative (AFM-2).**

Response: The interagency Cedar River Sockeye Committees established by Senate Bill 5156 initiated the Landsburg Interim Sockeye Hatchery Program in 1991. All sockeye fry that have been released from the facility have been otolith marked to allow separation of natural and hatchery production. Through the operation of the facility at various levels of fry production, the following information has been generated.

- Alaskan sockeye culture protocol (McDaniel et. al, 1994) can be employed to effectively produce disease free sockeye fry in the Cedar River.
- Emergence timing. Data for comparison of emergence timing of hatchery and natural fry are available from 1992 to present. An additional 4 years of information will be available prior to the beginning of planned construction. Results to date indicate that emergence timing of hatchery fry is earlier than that of natural fry. There are three probable causes: Differences in incubation temperature, acceleration of emergence due to crowding in incubators, and the timing of eggtakes being skewed toward the front of the run. This information has led to the inclusion of the options to use incubation water temperature control and/or short-term rearing to adjust developmental condition and release time to more closely match that of wild fry. Also, alternative broodstock

capture methods will be investigated in an effort to improve the program's ability to meet the dual objects of: 1) capturing an appropriate number of sockeye spawners in a manner that is representative of the overall population and 2) minimizing impacts to naturally reproducing chinook, sockeye, and coho in the Cedar River.

- Disease control. Control of Infectious Hematopoietic Necrosis (IHN) virus has been highly successful indicating that the water supply is free of IHN and that operational procedures being used are effective in controlling the virus. During the 8 years of incubation at the interim facility, only one incident of IHN virus has been observed. This occurrence was completely contained within one incubator. All fry in this incubator were destroyed and disposed of according prescribed sockeye culture protocol. This loss constitutes less than 1 percent of the total production from the hatchery since inception. No other disease problems have occurred.
- Straying to Bear Creek. Otolith samples have been collected from returns in 1998 and are awaiting processing. There should be four additional years of straying rate information available before construction of the hatchery. As part of program for managing risk and uncertainty as described in Section 4.3 of the HCP, the Parties to the Landsburg Mitigation Agreement (including the NMFS), in collaboration with the Cedar River Anadromous Fish Committee (CRAFC) will develop guidelines for the design, construction, operation, monitoring, and evaluation of the proposed sockeye mitigation program. These guidelines will include the establishment of protocols for monitoring the rate at which Cedar River hatchery sockeye stray into Bear Creek. They will employ the best available science to specify thresholds above which the number of Cedar River strays may pose an unacceptable level of genetic risk to Bear Creek sockeye.
- Fry to adult survival. Information collected from returning adult sockeye in 1997 and 1998 is currently being analyzed to assess the survival rate of fry released from the interim hatchery. An additional 4 years of fry to adult survival data will be available prior to the proposed construction of the hatchery.
- Contribution of sockeye adults by hatchery releases. Combining the hatchery fry to adult survival, determined by otolith marking, with stream escapement counts will allow determination of hatchery contribution to escapement. Before initiating construction, there should be 6 years of data on the contribution of the interim facility to escapement.
- Prey abundance in Lake Washington. Monitoring of zooplankton abundance in Lake Washington has shown continuing abundance of *Daphnia* and *Cyclops*, two species known to be very important components of the diet of sockeye. Data on plankton abundance are available for an extended period dating back to the 1950s. Counting 1999, there will be another 3 years of data to add to this long-time series of data.
- Size and age of sockeye pre-smolts from Lake Washington. Hydroacoustic surveys have been conducted since 1968 and age and size sampling is conducted in conjunction with the surveys in early spring. Assuming that WDFW will continue the

surveys, there should be 4 more years of data to evaluate prior to beginning construction of the new facility.

- Spawning timing. The Cedar River Instream Flow Committee (CRIFC), developed run curves for sockeye based on WDFW surveys conducted each year since 1967 (Cascades Environmental Services, 1995). An additional 4 years of spawner run timing information will be available prior to construction of the hatchery.

The process for responding to the results of monitoring data is addressed in the Landsburg Mitigation Agreement Section E.3.b, which states that the Parties to the agreement, in consultation with the Cedar River Anadromous Fish Committee, shall develop guidelines to govern the design, construction, operation, and monitoring of the sockeye fry production program. These guidelines include the procedures for developing and modifying annual operating procedures and production targets. Various options exist for responding to results of monitoring information, including whether to build or postpone construction of a new facility.

Monitoring will be accomplished through the commitments described in Sections 4.3.5 of the Draft HCP and is expected to be supplemented by ongoing work that is being conducted by the fisheries resource co-managers and others. This information will be reviewed by the CRAFC which will provide the Parties to the Agreement with technical input regarding appropriate responses to the monitoring studies. The CRAFC will be composed of 10 members including a representative from each signatory to the Landsburg Mitigation Agreement, King County, the Muckleshoot Indian Tribe (if not a signatory to the Agreement) and four other stakeholders. This inclusive group will provide a variety of perspectives, allowing multiple views to be heard and considered. The Parties have the authority to respond to recommendations of the CRAFC by altering operational procedures and/or production goals including ceasing production altogether.

**General Comment #22: Some commenters asked for clarification as to whether or not the proposed hatchery could ever be used for the rearing of sockeye fry. If the answer is yes, then it was suggested that potential impacts from releasing these fry need to be specifically addressed in the EA/EIS.**

Response: Proposed funding for the hatchery facility allows for the construction of facilities to rear sockeye fry for up to 2 weeks if such an approach is deemed appropriate based on the proposed monitoring and evaluation program. This capability could be utilized if it was determined that temporary holding of early emerging fry for a short period was necessary to ensure the developmental condition and emigration timing of hatchery fry migration into Lake Washington corresponds with that of naturally produced fry. Extended rearing of hatchery fry would not be allowed under the HCP proposal.

**General Comment #23: Commenters indicated that the HCP proposal should place more emphasis on other anadromous fish species, such as chinook salmon, coho salmon, dolly varden, lamprey, sea run cutthroat trout, and steelhead, and less emphasis should be placed on introduced species like sockeye salmon. Many commenters felt the focus should be on chinook salmon which has been listed under the ESA.**

Response: As discussed in the response to General Comment #1, the purpose of an HCP is to avoid, minimize, and mitigate for City's water supply and land management activities in the Cedar River Watershed and allow for the recovery of the species covered by the plan. In general, no more emphasis is placed on Cedar River sockeye than on any other species in the plan.

The HCP is a broad based, multi-species plan that covers 83 vertebrate species, including sockeye salmon. With the rerouting of the hydrologic pattern of the Lake Washington Basin between 1912 and 1917, the ecology of the basin was dramatically altered. One of the effects of this alteration was to create a previously unavailable opportunity for sockeye salmon to flourish in the Cedar River. Sockeye salmon have been naturally reproducing in the Cedar River for over 50 years and are an integral part of the aquatic community in the Lake Washington Watershed.

The level of mitigation and protection proposed in the HCP for each species reflects the amount needed for the City of Seattle to achieve the planning objectives for the whole program, such as fully mitigating for impacts to all anadromous species from the barrier created by the Landsburg Diversion Dam. If sockeye salmon could be passed above Landsburg without causing potential drinking water quality problems, then the false perception that there is more emphasis on sockeye probably would not exist.

A centerpiece of the City's program to mitigate for the effects of the migration barrier at the Landsburg Diversion Dam is the restoration of access to and protection of 17 miles of previously blocked, high quality spawning and rearing habitat for chinook, coho, and steelhead. The presence of large numbers of spawning carcasses from mass spawning sockeye creates an unacceptable level of risk for the City's drinking water supply. Therefore, sockeye cannot be afforded the benefit of the 17 miles of high quality habitat that runs through the center of the City's proposed ecological reserve. Alternative mitigation must be provided for sockeye salmon.

When comparing the effects of the HCP between species, it is important to evaluate the mitigation and benefits provided by all three components of the plan as an entire package. Benefits to many species including chinook, coho, steelhead, and sockeye salmon would be produced by a variety of elements in the plan. The watershed management elements not only provide an ecological reserve which protects 17 miles of refuge habitat for chinook,



coho, and steelhead, but they also ensure that the Cedar River will contribute high quality water for all aquatic species from its source in the headwaters, to the lower river and on to Lake Washington. As described in Section 4.4 of the Draft HCP, the proposed instream flow management regime will substantially improve conditions for all anadromous salmonids throughout their historic range in the Cedar River. The proposed funding for habitat improvements in the lower river and for fish passage and water conservation improvements at the Ballard Locks will benefit a number of species, including chinook salmon.

In addition, the Services have worked with the City to develop sufficiently conservative measures in the HCP and related agreements for all the covered species of fish as if those species were already listed for ESA protection. This conservative construction of the HCP allows the Services, under the No Surprises Policy, to assure that the City would not be required to provide more conservation in the event that a currently unlisted, but covered species becomes listed.

**General Comment #24: Some commenters suggested additional alternatives including: 1) either permanently moving the City’s drinking water intake or temporarily withdrawing water above the location where sockeye spawn; 2) utilizing alternative forms of water quality treatment such as ozonation or filtration; or 3) relying on water from the South Fork Tolt Reservoir during sockeye spawning. It was suggested that under such alternatives sockeye could spawn between Landsburg and Lower Cedar Falls without affecting drinking water quality.**

Response: Section 2.3.2 of the EA/EIS describes Anadromous Fish Mitigation alternatives considered but eliminated from detailed analysis. Included in that discussion is the suggestion of moving the City’s drinking water intake upstream. The effect on water treatment processes of high numbers of salmon carcasses in the water above the intake is discussed in Technical Appendix 5. Because sockeye spawning in the Cedar River takes place over many months, it is not possible to rely on water from the South Fork Tolt Reservoir during sockeye spawning. The yield of the South Fork Tolt supply source is too small to serve the entire regional system and South Fork Tolt River instream flow needs during the spawning period.

**General Comment #25: Commenters suggested that the Issaquah hatchery should be considered for sockeye enhancement rather than constructing the proposed Cedar River hatchery. Some commenters felt that the reasons given for rejecting this alternative were not adequate and that a more thorough analysis was needed.**

Response: Section 2.3.2 of the Public Review Draft EA/EIS provides a brief discussion of the reasons why use of the Issaquah Hatchery was not an alternative considered in detail.

In response to public comment, a public discussion was conducted to determine whether or not this facility should be more carefully considered as an alternative site to the proposed facility on the Cedar River. On February 11, 1999, the Cedar River Sockeye Technical Committee met in open session along with a representative from the Sierra Club and operators from the Issaquah Hatchery to discuss the pros and cons of using the facility. The main topics evaluated in this meeting included space availability, existing program goals in relation to facility utilization, existing water supply, potential sources of suitable water, and straying potential including the ramifications to Bear Creek and disease risk. Serious concerns about the ability of the site to expand to meet the demands that a major new sockeye program would require in terms of water, space, and operations, as well as concerns over the risks of increased straying into a natural sockeye system that NMFS has identified as a potential ESU, led most people at the meeting to conclude that further exploration of Issaquah Hatchery was unwarranted. A technical memorandum documenting the meeting held on February 11, 1999 has been included as a supplemental technical appendix (see new Technical Appendix #32; Attachment I).

**General Comment #26: Some commenters suggested that the Walsh Lake and Walsh Ditch habitat restoration should be an integrated component of the proposed HCP.**

Response: In addition to fish passage for chinook salmon, coho salmon, and steelhead trout, and the hatchery for sockeye salmon, another element of the Anadromous Fish Mitigation component of the HCP is habitat restoration and protection downstream of the Landsburg Diversion Dam. Protection and restoration of naturally spawning sockeye salmon and their habitat is vital to successful long-term production of sockeye salmon in the Lake Washington Basin. Under the HCP proposal, AFM-2, the City would commit \$1,637,000 to go towards habitat protection and restoration downstream of the Landsburg Diversion Dam. Under other alternatives, money available for downstream habitat restoration and protection would be \$5.2 million, up to \$19.3 million, and \$24.1 million for alternatives AFM-3, AFM-4, and AFM-5, respectively. Projects that could be funded under any of these alternatives might include: (1) the construction of groundwater-fed side channels in the floodplain of the lower Cedar River, such as those identified in 1996 as part of King County Department of Natural Resources' *Cedar River Basin and Non-Point Pollution Action Plan*; (2) enhancement of the Walsh Lake Diversion Ditch would also be eligible for consideration; and (3) acquisition of habitat downstream of the Landsburg Diversion Dam. Decisions regarding specific projects and funding would be made by the Parties to the Landsburg Mitigation Agreement (LMA) which includes WDFW, NMFS, USFWS, and the City of Seattle. (For more information on the LMA, please see Technical Appendix #28.)

**General Comment #27:** In regards to operation of the hatchery, concerns were raised that one problem with this type of adaptive management is that you won't have the information to change your management approach until irreversible problems, like straying effects on the Bear Creek sockeye run, have already occurred.

Response: The HCP includes the necessary elements of an adaptive management program to improve the effectiveness of the sockeye mitigation program and minimize risks to naturally reproducing salmonids in the Lake Washington Watershed. As described in Section E.3 of the Landsburg Mitigation Agreement, this program will be overseen by the parties to the Agreement and the CRAFC. The City anticipates that the program will be flexible and responsive, and that it will be designed to preemptively avoid impacts through conservative operating procedures coupled with thorough program monitoring. The risks associated with the sockeye hatchery have been discussed in Section 4.3.2 and 4.3.3 of the Draft HCP. An open decision-making process is provided in the HCP that allows for a broad range of actions that can be taken to control and reduce risk, including changes in operational procedures, production goals, and study design. During the first year of the HCP, procedures will be established by the Parties to the Agreement in consultation with the CRAFC to assess and respond to risk and uncertainty. These groups are charged with the responsibility for the development of conservative procedures that are risk averse and that respond appropriately to monitoring results.

Adaptive management, as envisioned in this component of the HCP, allows for the establishment of conservative goals that minimize the risk of irreversible harm to naturally reproducing salmonids. For example, to reduce the risk of detrimental genetic impacts on the Bear Creek sockeye population, the Parties, in collaboration with the Committee, can work with geneticists from NMFS, to establish conservative allowable straying rate thresholds. Should straying rates exceed desired threshold levels, the Parties in consultation with the CRAFC, can implement corrective measures including a reduction in hatchery production levels.

**General Comment #28:** The mitigation goal established by the State of Washington for sockeye salmon as a result of the Landsburg Diversion Dam is 34 million sockeye fry. This number has been estimated to be equivalent to what could be naturally produced from maximum utilization of spawning habitat above the Landsburg diversion. Commenters indicated that this sockeye mitigation goal was inappropriate or that there should be a way to adjust the requirements of Senate Bill 5156.

Response: This comment is beyond the scope of the proposed action, and addresses a matter which is not under the control of the City of Seattle.

Analyses performed by the WDFW, as summarized in Technical Appendix 4, estimate that the mainstem of the Cedar upstream of Landsburg could support a populations of 262,000 spawning sockeye salmon. Senate Bill 5156, passed in 1989 by the Washington State Legislature and codified in Recorded Code of Washington (R.C.W.) 75.52, uses this analyses as the basis to establish the mitigation goal for the effects of the migration barrier formed by the City's Landsburg Diversion Dam on sockeye salmon. The legislation sets the mitigation goal as the production "at a minimum, of fry comparable in quality to those produced in the Cedar River and equal in number to what could be produced naturally by the estimated two hundred and sixty-two thousand adults that could have spawned upstream of the Landsburg Diversion." The Cedar River Sockeye Technical and Policy Committees, established by the legislation, further determined the numerical fry production goal of 34,000,000 sockeye fry per year (James M. Montgomery, Inc., 1991).

Mitigation commitments in the proposed HCP for effects of the Landsburg migration barrier on sockeye salmon are derived from direction provided by Senate Bill 5156 and the actions of the Cedar River Sockeye Technical and Policy Committees. Since passage of the bill in 1989 there have been no attempts before the legislature to alter the established mitigation goal. Furthermore, the City is not aware of any current effort that would likely alter the mitigation goal in the foreseeable future.

**General Comment #29: Some commenters indicated that the 350,000 sockeye escapement level for the lower Cedar River was too high.**

Response: This comment is beyond the scope of the proposed action, and addresses a matter which is not under the control of the City of Seattle or the Services.

The fisheries resource co-managers, the WDFW and Wildlife and the Muckleshoot Indian Tribe, are responsible for establishing escapement goals for the Cedar River. The analysis used for determining the current Cedar River sockeye escapement goal is provided in Technical Appendix #3. Note that the present goal, although in effect since 1979, is still considered provisional and could be adjusted upward or downward in the future as new information becomes available.

**General Comment #30: A variety of concerns were expressed by commenters on the possible effects of hatchery sockeye on natural salmon populations in the Cedar River, Bear Creek, and Lake Washington. These concerns included:**

- The effects on the genetics of wild sockeye, including domestication issues.
- Effects of straying on naturally reproducing stocks.
- Effects of harvest on naturally reproducing stocks.
- Competition with naturally reproducing stocks for limited resources.

- **Ecological effects on salmonids other than sockeye, including chinook and steelhead.**
- **The possible disturbance of chinook redds by the additional sockeye spawning in the Cedar River.**

Response: The potential environmental consequences of hatchery sockeye on natural salmon populations in the Cedar River, Bear Creek, and Lake Washington are addressed in Section 4.4 of the Public Review Draft of the EA/EIS. The Draft EA/EIS describes the objectives of the sockeye fry production program (p. 4.4-14). These include an objective to minimize detrimental impacts on the reproductive fitness and genetic diversity of naturally reproducing sockeye salmon populations in the Cedar River and Bear Creek sub-basins. Another relevant objective is to avoid or minimize detrimental ecological impacts on native salmonids throughout the Cedar River Watershed.

The description of the risks of hatchery production to natural populations and of how these potential impacts would be minimized was developed with the benefit of the NMFS review of the hatchery program contained in Technical Appendix 29 and further discussion with NMFS staff. By having identified the specific risks at the outset, the monitoring program will be more effective at detecting undesirable outcomes. Additionally, outside oversight has been established through the CRAFC and the Parties to the Landsburg Mitigation Agreement to ensure that objectives are met. Together, risk identification, monitoring, oversight and response, represent the components of the adaptive management program for the hatchery. The combination of adaptive management with gradual increases in sockeye fry production greatly reduces risks to natural stocks.

Funding has been established in the HCP to support monitoring activity targeted at the detection of impacts to natural populations of salmon in the Lake Washington basin. The funding commitments for monitoring extend over a 50-year period, providing unusual assurance that scheduled monitoring will occur. Comments that request additional funding for additional studies have been noted and will be provided to the Seattle City Council for their consideration while reviewing the HCP.

The City of Seattle and the Services believe that these potential environmental consequences have, for the most part, been adequately addressed, but some minor revisions to this section of the document have been made to expand or clarify certain information. Please see responses to General Comments #20, #21, and #27.

**General Comment #31: Some commenters expressed concern about the ability of Lake Washington to support the number of sockeye fry that would be released from the hatchery and enter the lake (i.e., the lake's carrying capacity). There were concerns about the amount of food available for wild and hatchery fry. Exceeding the carrying capacity could result in reduced fry survival in Lake Washington.**

Response: The uncertainty associated with the ability of Lake Washington to support additional fry and the adaptive manner in which the proposed sockeye fry production program will be managed to address this issue is discussed in Section 4.4.0 of the Public Review Draft of the EA/EIS. The City of Seattle and the Services believe that adaptive management and oversight provisions described in this section and in Section 4.4 of the Draft HCP allow the flexibility to ensure that future sockeye fry stocking levels in Lake Washington will be appropriate. Please see response to General Comment #21.

**General Comment 32: Some commenters suggested that the introduced sockeye may be interfering with the production of native kokanee within Lake Washington.**

Response: In spite of the fact that large numbers of introduced kokanee salmon were intensively planted in the Lake Washington Basin for much of the early part of this century, kokanee salmon have become increasingly rare since the major alterations of the basin's hydrologic patterns were completed in 1917. The City is not aware of any information indicating that the Cedar River currently supports a significant native population of kokanee salmon, the non-anadromous form of *O. nerka*. Spawning surveys conducted by the WDFW since 1967 have never reported the presence of a substantial spawning population of kokanee salmon in the Cedar River. A very small population of fish that are potentially kokanee salmon from an unknown source have been verified in Walsh Lake. Although kokanee have been reported spawning in tributaries in the Lake Sammamish system, we are not currently aware of the existence of kokanee populations in Lake Washington or in any of the other tributaries draining directly into the lake. Should such a populations exist, their interactions with the anadromous form of *O. nerka* would likely be quite complex and perhaps similar to other systems in British Columbia and Alaska with sympatric populations of the anadromous (sockeye) and resident (kokanee) forms of *O. nerka*.

**General Comment #33: Some commenters expressed concerns about the possible effects on water quality from the operation of the proposed hatchery.**

Response: The City of Seattle and the Services believe that the environmental consequences for water quality from all of the evaluated hatchery alternatives are adequately discussed in Section 4.2 of the EA/EIS. In general, water quality issues associated with hatcheries are governed by the Washington Department of Ecology (Ecology). State policy and permits governing the facility would ensure that discharges

from the hatchery will not have deleterious effects on water quality in the river downstream of the facility. Because all hatchery alternatives result in the release of fry at a very small size shortly after emergence, production levels remain well below the thresholds that trigger the requirement to secure a National Pollutant Discharge Elimination System (NPDES) permit.

Effects on water quality from hatchery operations are considered negligible for alternatives AFM-2, AFM-3, and AFM-4. Effects are unknown for Alternative AFM-1 because the timing of hatchery construction, if it occurs at all under this alternative, is uncertain. Hatchery facilities would not be operated under Alternative AFM-5.

**General Comment #34: Some commenters indicated that the effects of the weir needed in the Cedar River to collect sockeye salmon broodstock for the hatchery were not adequately discussed in the EA/EIS. Other commenters questioned the operational success of the existing weir.**

Response: The City of Seattle and the Services agree that the development of measures to avoid and minimize potential impacts of interim and long-term sockeye broodstock collection efforts on naturally reproducing salmonids in the Cedar River is an important component of the proposed sockeye mitigation program. While we are not aware of any definitive information demonstrating that ongoing broodstock collection activities associated with the current interim sockeye hatchery have had significant detrimental impacts on salmonid reproduction in the Cedar River, past experience with the prototype sockeye hatchery program has demonstrated the need for a thoughtful and well-founded approach to broodstock collection. New text has been added to Section 4.3.2 of the EA/EIS to address this issue.

In 1997, after a period of exceptionally high flows during the later part of the sockeye spawning season followed by reduced stream flows associated with a decline in natural flows and efforts to manage regulated flows to allow for removal of the sockeye broodstock collection facilities, the City received reports that adult sockeye and sockeye redds had been stranded. Upon investigation, we learned that stranding of small numbers of adult sockeye had been confirmed at two locations. Both locations were created as a result of recent mechanical alterations of the stream channel and represented unnatural and unique conditions, not typical of the rest of the stream channel. Anthropogenic alterations of the channel morphology at these locations appears to have been a major contributor to the stranding of adult sockeye and several of the redds they had created during a period of high flows late in the spawning season.

In the fall of 1998, some observers suggested that the operating regime for the broodstock collection facilities caused chinook salmon to spawn in higher densities than normal in the areas just downstream of the broodstock collection facility. Although the effects of these

alleged impacts on reproductive success were not measured, the Cedar River Sockeye Technical Committee is currently working to develop improved protocols to further reduce the chances that broodstock collection activities will have a negative impact spawning and incubating chinook.

Later in 1998, the broodstock collection facility was partially buried by bedload transport during a peak flow event. Subsequent facility removal operations resulted in disruptions to substrate in the vicinity of the weir on December 9. Although we are not aware of any measurement of the impacts of this operation on incubating salmonids, some observers claim that chinook and sockeye redds were significantly impacted by this operation. In response, the Cedar River Sockeye Technical Committee is developing improved operating procedures to further reduce the potential impacts of facility removal practices on naturally reproducing salmonids.

We believe that the potential risks associated with installation, operation, and removal of interim and long-term broodstock collection facilities can be minimized and avoided through the development of rigorous broodstock collection protocol and implementation of improved broodstock collection practices beginning in Year 1 of the HCP.

The sockeye broodstock collection program has two primary objectives: 1) to capture an adequate number of adult sockeye in a manner that provides a representative subset of the entire Cedar River sockeye population, and 2) to avoid and minimize any impacts the program may have on naturally reproducing salmonids in the Cedar River. The City of Seattle and the Services acknowledge the importance of developing future sockeye broodstock collection practices that improve the operator's ability to meet these objectives.

The design and implementation of improved sockeye broodstock practices will be addressed during the planned development of sockeye mitigation program guidelines in Year 1 of the HCP. Under AFM-2, AFM-3, or AFM-4, ongoing evaluation, analyses, and design activities will determine the precise method of broodstock collection for the final sockeye fry production program. Interim and long-term broodstock collection facilities will be designed and operated in a manner that avoids and minimizes potential negative impacts on naturally reproducing fish in the Cedar River. Specific aspects of the long-term broodstock collection program will be further addressed during project specific environmental review prior to initiating construction of a final facility.

**General Comment #35:** Some commenters questioned whether the non-binding flows recommended by the Instream Resources Protection Program (IRPP) for the Cedar River represented the appropriate No Action Alternative to the HCP proposal.



Response: Under NEPA and SEPA, the No Action Alternative is defined as no change from current management direction or level of management intensity. Thus The City of Seattle and the Services believe that the non-binding flows recommended by IRPP for the Cedar River represent the appropriate No Action Alternative to the HCP proposal. The No Action Alternative should describe what is likely to occur under the management of instream flows if the City of Seattle does not pursue an ITP and does not implement an approved HCP. In general, the No Action Alternative for the Instream Flow component of the HCP would be defined as a continuation of current flow management practices. Under this alternative, the City of Seattle would follow the flow regime set in 1979 for the Cedar River as general, non-binding guidelines for managing flows, and would continue to manage flows with the objective of meeting the minimum instream flows established in Washington Administrative Code (WAC) 173-508-060. These flows were developed by the IRPP. Please refer to Section 2.3.3 of the EA/EIS for more information.

**General Comment #36: Some commenters indicated preferences for different flow regimes in the river. Some commenters were satisfied with the proposed HCP flow regime in Alternative IF-2 while others had other preferences. At least one commenter felt that existing flow patterns were fine and that current instream flows are not substantially different than historic instream flows. Another commenter felt the proposed minimum flows should be higher. Some commenters felt that the river should be managed to provide maximum flow.**

Response: Given the nature of an instream flow regime, there are an infinite variety of possible flow curves which could be proposed. The HCP Alternative was designed to represent the best achievable scientifically based balance of competing considerations for the various life stages and biological needs of the four target anadromous fish species, while still meeting the objectives of the proposed action, including protection of firm yield and preservation of necessary operational flexibility. Preservation of non-firm water for potential future water supply uses was not a consideration in the development of the guaranteed flow proposal. In general, it was determined that flow proposals looking for higher guaranteed flows than are proposed in the HCP would be unacceptable because the variability and uncertainty of the weather and resulting hydrology would place both instream and out of stream uses at risk. Additionally, the studies indicate that higher guaranteed flows could have serious biological impacts on some fish species during different life stages. Thus alternatives proposed by the commenters would not meet project objectives, and need not be evaluated in detail. Additional information on expected flows under the instream flow alternatives has been included in this response package. For further discussion of these issues, see Section 2.3.3 of the EA/EIS.

**General Comment #37: Some commenters felt that there were not enough instream flow alternatives evaluated in the EA/EIS.**

Response: Please see response to General Comment #36 above.

**General Comment #38: Some commenters suggested that the EA/EIS should have evaluated an alternative that would manage the Cedar River similar to the natural annual flow patterns.**

Response: The City believes that natural hydrologic patterns do provide ecological benefits in many ways, and strives to preserve those elements of the natural flow regime that are not overly detrimental to either fish and wildlife resources or water supply needs. While the instream flow conservation strategy considers natural hydrologic patterns, simply attempting to mimic general natural hydrologic patterns is overly simplistic and insufficient to ensure the provision of high quality salmonid habitat in a highly altered environment. As discussed in Section 4.4 of the Draft HCP, several features of the instream flow conservation strategy attempt to reflect the natural hydrologic patterns of the Cedar River. In addition, the following additional information is being included in this response package to better describe the natural flow regime.

Natural Flows in the Cedar River

For purposes of this discussion, natural flows are described as the streamflows that would be expected to occur in the Cedar River if there were no dam structures or water supply or hydroelectric power facilities operating in the river basin. This scenario has been modeled using the City of Seattle's numerical computer model for the Cedar River and Seattle's water supply system. The model uses a 64.5-year historical record of weekly streamflow data (water year 1929 to mid-water year 1993) which represents natural flows in the Cedar River from the headwaters of the upper watershed down to the mouth of the Cedar River at Renton where the Cedar River flows into Lake Washington. In this model scenario, the dams and storage reservoir elements are removed and no river diversions or water supply operations are made. It is important to note that natural flows as described herein are not intended to represent pre-development flows for the Cedar River basin. Development and land use activities have occurred throughout the upper and lower Cedar River Basin over the period of record and these factors are reflected in the historical streamflow datasets which are based on actual Cedar River streamflow measurements made by the U.S. Geological Survey. For more information about the streamflow datasets and the City's computer model for the Cedar River, please see Technical Appendix 27, Exhibit A.

Section 3.2.1 of the Draft EA/EIS already describes the characteristics of natural streamflows into Chester Morse Lake, natural local streamflows between Chester Morse Lake and Landsburg, and natural local streamflows between Landsburg and Renton; please refer to the information found in that section.

The additional information here describes what the resultant natural streamflows would be like in the Cedar River at Renton without the influence of the existing water supply storage reservoirs behind Masonry Dam and the Overflow Dike in the upper watershed, water diversions and river return flows for hydropower generation, and water supply diversions and river operations at the Landsburg Diversion Dam and associated water supply facilities. Figure 4-1 shows the statistical 10th, 50th, and 90th percentile (%ile) and maximum and minimum weekly streamflow values for the Cedar River at Renton for this natural flow regime.

A wide range of streamflow pattern variation and fluctuations would exist in the Cedar River at Renton under the natural flow regime. To help illustrate this variation in streamflows for the natural flow regime, Figures 4-2, 4-3, 4-4, and 4-5 show graphs of selected years of mean weekly flows under different natural hydrological conditions in the Cedar River Watershed. The magnitudes, fluctuations, and variations in streamflow values can be seen. These example hydrographs show typical resultant streamflow patterns in the Cedar River at Renton under the natural flow regime. Note that the hydrographs are plotted using mean weekly time steps; if the hydrographs were plotted using mean daily data, they would show even more flow pattern variations and fluctuations, and greater magnitudes in streamflow values.

Another helpful way to look at the variation and probability of water flow amounts in the Cedar River is by graphing flow duration curves. These curves show the percent of time that flows are equaled or exceeded in the flow record. Flow duration curves were developed for the summer/fall period (June 17 to October 31), winter period (November 1 to February 28), and spring period (March 1 to June 16) to provide information on the natural flow regime for Cedar River during the typical reservoir drawdown, flood, and reservoir refill seasons, respectively. Flow duration curves for the natural flow regime are shown in Figures 4-6, 4-7, and 4-8. The flow values shown in each of the figures are the flow volumes expressed as average flows in cubic feet per second over the specified time period.

**Figure 4-1.** Natural Weekly Flows for Cedar River at Renton Statistics Based on Water Year 1929 to 1992 Hydrologic Conditions

**Figure 4-2.** Natural Weekly Flows in the Cedar River at Renton Under 1952 Hydrologic Conditions

**Figure 4-3.** Natural Weekly Flows in the Cedar River at Renton Under 1959 Hydrologic Conditions

**Figure 4-4.** Natural Weekly Flows in the Cedar River at Renton Under 1974 Hydrologic Conditions

**Figure 4-5.** Natural Weekly Flows in the Cedar River at Renton Under 1981 Hydrologic Conditions



**Figure 4-6.** Cedar River at Renton – Natural Flow Duration Curves for the Drawdown Period (June 17 to October 31)

**Figure 4-7.** Cedar River at Renton – Natural Flow Duration Curves for the Winter Period  
(November 1 to February 28)

**Figure 4-8.** Cedar River at Renton – Natural Flow Duration Curves for the Refill Period  
(March 1 to June 17)

**General Comment #39:** Commenters indicated that there should be a cap or moratorium on any further development of the Cedar River for Seattle or regional water supply until fisheries studies on chinook salmon are completed (for more information on chinook studies, please see responses to General Comments #43 and #44 below). Some commenters also indicated that an alternative should have been evaluated in detail that placed a cap on the City's withdrawals of water from the Cedar River. Some commenters were concerned that without a cap SPU could increase water diversions that would shrink the Cedar River down to the minimum flows of the proposed alternative. Some commenters felt that a cap on diversions would restrict the region's ability to manage water supplies in a manner that would maximize benefits for people and fish.

Response: The reasons for not considering a "cap" on future water withdrawals from the Cedar River are presented in Section 2.3.3 of the EA/EIS. The purpose of the proposed HCP is to ensure compliance with the ESA by addressing potential impacts to species of concern from City operations in the Cedar River Municipal Watershed. Fundamentally, the HCP addresses how much water (and the timing, quality, and other aspects of a flow regime) is needed for the preservation and conservation of all species covered under the ITP. Preservation of non-firm water for potential future water supply uses was not a consideration in the development of the guaranteed flow proposal. It is not within the scope of the HCP to address how the City and region will meet future water demand. It is not a regional water supply plan. As a separate process, the City is currently involved in long-range regional water supply planning that would consider new sources, conservation, and use of the region's water resources through conjunctive use of different sources. The City's water claim, the seasonal pattern of water use, and proposed HCP instream flow commitments do put both a practical and legal limit on diversions. Although the instream flow commitments proposed in the HCP would not preclude the City of Seattle from placing a cap on future water withdrawals, diversion caps could unacceptably constrain the City's need for operational flexibility to handle swings in weather, demand, and water system problems. For these reasons a cap or moratorium has not been included as a component of the instream flow proposal for the HCP. However, these comments will be taken under consideration by the Seattle City Council when revising the HCP document for final publication and submittal to the Services. Please refer to the response to General Comment #50. With respect to the need for additional information on chinook, please see responses to General Comments #43 and #44.

**General Comment #40:** Several comments were made concerning water conservation measures. One person commented that the Instream Flow alternatives should be expanded to include an educational program that provides workable methods of conserving water during low flow water seasons. One person suggested water conservation measures to allow increased flows during November to May are unneeded, that lower flows would actually be more beneficial. Several

**people commented that conservation measures should include incentives to reduce summer-time watering of lawns. Other people suggested that higher levels of enforcement for conservation measures is needed. Incentives for water conservation should be more clearly outlined.**

Response: Water conservation is not addressed in the HCP in a comprehensive fashion because the purpose of the HCP is to identify flows and other measures necessary for species protection. It is the responsibility of the City to manage the water demand of its customers so that it can meet the flow commitments made in this HCP. The HCP is not a document intended to address regional water supply issues, including the appropriate role of demand management. The proposed HCP does commit the City to spend up to \$1.5 million to publish or broadcast water conservation messages every summer that emphasize the importance of water conservation to protect fish habitat. (See Section 4.4.2 of the Draft HCP.) However, the plan does not attempt to describe the role that conservation programs are playing now, or will play in the future. SPU currently has in place a very successful and effective water conservation program and long-term Water Conservation Strategy. For detailed information on the Water Conservation Strategy adopted in 1996, please see Technical Appendix #9. The purpose of this strategy has been to continue development of conservation as a reliable water resource for the metropolitan region. SPU, along with its regional water purveyors, is committed to aggressively pursuing conservation, both as a steward of a valuable and limited water resource and as the most readily available and least costly water resource for the next several years. The effect of water conservation is to reduce water diversions, and to delay the need for a new water supply source.

In addition to the long-term water conservation strategy, Seattle Public Utilities has recently adopted the “1 percent Conservation Initiative” as one element of Seattle’s comprehensive program for addressing the needs of chinook salmon and other fish species which may be listed under the ESA. This 1 percent Initiative is expected to result in a 10 percent reduction in water use per capita that is above and beyond the conservation measures being implemented as part of the long-term conservation strategy. This potential additional 1 percent per year savings has been estimated to be feasible through the City’s Conservation Potential Assessment, which is a comprehensive assessment of potential cost effective water savings and the measures which can achieve them. Water resources conserved through the 1 percent Initiative are expected to offset growth demand increases over the next decade. For more information about the 1 percent for Conservation Initiative, please contact Suzan Hill at (206) 684-4150. Please also see new Technical Appendix 30 in Attachment I for additional water conservation information.

**General Comment #41:** The capacity of Chester Morse Lake should be increased by raising the dam or moving the dam to another location. Additional water to fill the lake can be acquired by withdrawing water from the Columbia River near Vantage and constructing an aqueduct to Chester Morse Lake that utilizes existing abandoned train routes and bridges. Water from this aqueduct can also be used to supply water to the Yakima River and Green River.

Response: The purpose of the HCP is to address appropriate measures to minimize and mitigate for potential take resulting from the City's activities. This comment proposes developing a new water source, which does not meet those purposes. The main purpose of the instream flow component of the proposed HCP is to address municipal water supply operations in the Cedar River Watershed. The HCP is not a regional water supply plan. As a separate process, the City is currently involved in long-range regional water supply planning that would consider new sources, increased conservation, and use of the region's water resources through conjunctive use of different sources. As a result, proposals to raise the height of the dam or move the dam to another location for the purposes of accommodating additional water storage from other sources such as the Columbia River is beyond the scope of the HCP.

**General Comment #42:** Some commenters felt that IRPP flows (included as part of the No Action Alternative) were not the appropriate baseline for evaluating the environmental consequences from the proposed flow regime under IF-2. Some commenters felt "natural flow" patterns were the appropriate baseline for comparisons in order to understand impact to fisheries resources from either IRPP flows or the proposed flow regime. Others suggested existing flows should be the baseline. One commenter suggested that the EA/EIS compare the two alternative flow regimes to flows providing IFIM maximum habitat at median inflows for chinook salmon, coho salmon, sockeye salmon, and steelhead trout at all life history stages.

Response: NEPA and SEPA require an analysis of environmental impacts resulting from the proposed action. Thus the appropriate "baseline" is the condition that would occur if the proposed action were not to occur. Natural flows might be an appropriate baseline if the proposed action were the granting of a new right to divert and use water. However the action proposed here is to establish an appropriate conservation regime for certain species covered by the plan, so that the Services can authorize continuation of what is alleged to be potential on-going incidental take of those species. The City of Seattle and the Services believe that the flows resulting from adherence to the non-binding IRPP minimum flows described in the No Action Alternative are the appropriate baseline for evaluating the environmental consequences from the flow regime proposed in the HCP because they represent the flows that would be provided in the absence of this conservation program. To aid the reader in understanding the context of the flow regimes, new text and other

information are included in this response package (see responses to General Comments #38 and #50) to better describe the natural flow regime and the expected flows resulting from the instream flow alternatives. With respect to comparisons of the alternative flow regimes with flows providing maximum weighted usable area (WUA), the City and the Services believe that this information is adequately covered in the EA/EIS.

**General Comment #43: Some commenters indicated that the proposed instream flows are inadequate and would not avoid jeopardy and assure recovery of chinook salmon and other salmon species that rely on the Cedar River.**

Response: The City of Seattle and the Services believe that the potential environmental consequences for fisheries resources from the proposed instream flow regime and the No Action Alternative are adequately discussed in Section 4.4 of the EA/EIS. The Cedar River Watershed HCP is a 50-year conservation plan designed to provide for the long-term survival of the species covered by the plan and also allow for their recovery (please see the response to General Comment #1).

Many factors affect the status of anadromous salmonids that spawn, incubate, rear in the Cedar River. Instream flow management is one important factor in the life history of these fish that range from Landsburg to the central North Pacific Ocean during their life cycle. The proposed instream flow regime was developed with the benefit of over 10 years of collaborative scientific work directed by the interagency CRIFC. All parties represented on the CRIFC participated in the development of the proposed instream flow regime. The flow regime, and the studies upon which it is based, attempt to address all life history phases of all four species of anadromous salmonids in the Cedar River, including chinook salmon. Seattle and the Services believe that the protections provided by IFM-2 represent a substantial improvement over existing conditions and are sufficient to allow for the recovery of chinook salmon and other salmonids that spawn, incubate and rear in the Cedar River. Please also see response to General Comment #44 below.

**General Comment #44: The environmental consequences for chinook salmon from the proposal are not adequately addressed. There is a need for higher spring flows to aid in the outmigration of chinook salmon fry out of the Cedar River and through Lake Washington into Puget Sound. There are also needs for additional minimum instream flows for chinook salmon. Many commenters suggested that additional studies of Cedar River chinook salmon life histories should be conducted as part of the proposed HCP.**

Response: See response to General Comment #43. Background information on chinook salmon and the corresponding life history strategies can be found in Section 3.4 of the EA/EIS. Seattle and the Services believe that the potential environmental consequences

for fisheries resources from the proposed instream flow regime and the No Action Alternative are adequately discussed in Section 4.4 of the EA/EIS.

Investigations and analyses used to support the development of an instream flow management regime for the Cedar River were directed and overseen by the CRIFC between 1987 and 1996. The CRIFC was composed of representatives from the Muckleshoot Indian Tribe, the United States Army Corps of Engineers (Corps), the WDFW, Ecology, USFWS, NMFS, and the City of Seattle. This body of work addressed the various life history stages of all four species of anadromous salmonids in the Cedar River on a year-round basis. The CRIFC selected, directed, and oversaw all aspects of a comprehensive suite of studies including a full IFIM study. For example, in one aspect of the IFIM studies, PHABISM analyses of the relationship between physical habitat and stream flow, the CRIFC instructed investigators to use habitat suitability criteria specifically developed for chinook and coho salmon and in Western Washington Rivers.

The collaborative instream flow investigations were used during 4 years of discussions with the members of the CRIFC to develop the instream flow management regime described in the March 14, 1997, Agreement in Principle to the Cedar River HCP and subsequently set forth in the HCP and companion documents. The five state and federal agencies represented on the CRIFC are signatories to the Agreement in Principle. The Muckleshoot Indian Tribe elected not to sign.

The proposed instream flow regime is in part based upon collaborative studies of the relationship between stream flow, and (1) potential adult chinook salmon migration barriers, (2) chinook spawning habitat, and (3) juvenile chinook rearing habitat in the Cedar River. Similar analyses were conducted for spawning sockeye and spawning and rearing steelhead and coho. The analyses also included the development of run timing curves for adult Cedar River chinook and sockeye salmon based on survey data collected by WDFW since 1964 (Cascades Environmental Services, 1995); steelhead run timing, spawning and incubation studies; extensive modeling of basin hydrology, reservoir operations and inflows to Lake Washington; and preliminary sockeye fry emigration studies. This body of information was employed in an effort to meet the needs of the various life stages of all four anadromous salmon species while minimizing interspecies conflicts and protecting natural hydrologic features important for proper ecosystem function.

The flows provided by the proposed regime are well above the levels that provide maximum rearing habitat for juvenile chinook salmon during their in-river residence period. Because of their complex juvenile life history pattern and the introduction of Lake Washington into their migration pathway, it is not at all clear that elevated spring flows are beneficial for juvenile chinook. In addition, as many as 10 different salmonid species/life stages may be present in the Cedar River during the period when juvenile chinook are



emerging, rearing and emigrating. The proposed guaranteed flows during this period attempt to meet the needs of not only juvenile chinook, but also spawning and incubating steelhead, emigrating sockeye fry, rearing yearling and underyearling steelhead and coho. Although elevated flows may be beneficial for some life stages, they can be detrimental to others. For example, an increase in flow from 290 cubic feet per second (cfs) to 950 cfs (as measured at Renton) during the month of May results in a 74 percent reduction in WUA for steelhead spawning and a 64 percent reduction in WUA for chinook rearing (Cascades Environmental Services, 1991). In addition, during periods of elevated flows in the spring, increased velocities and depths in much of the channel can encourage steelhead to spawn in many areas where their eggs will be vulnerable to dewatering as stream flows recede to normal summer base levels in July (Burton and Little, 1997).

The City of Seattle and the Services acknowledge that the Cedar River is an important component of the total annual inflow to Lake Washington. The flow of high quality water from the City's protected watershed into Lake Washington is an important contribution to the ecological health of the lake. However, the City does not direct the allocation of the lake's outflow to the various requirements for navigation, saltwater management and fish passage at the Ballard Locks which constitute the outlet to Lake Washington.

During the interagency instream flow discussions between 1993 and 1997, the parties, including the Corps, discussed water flow requirements for the Ballard Locks system at great length. As a result of these discussions, the final proposed instream flow management regime described in the Agreement In Principle for the Cedar River Watershed HCP and subsequently included in the draft HCP documents includes provisions to ensure that substantially more water would flow into Lake Washington during the Corps' key period of concern from June 17 through September 30. Please see Table 4.4-8 of the Draft HCP. Please see Sections 3.3.2 and 4.4 of the Draft HCP and Sections 3.2, 4.4.3 and 4.6 of the EA/EIS for more detailed information.

Comments requesting additional commitments to collect further information on Cedar River chinook salmon and their life history characteristics have been noted. These requests and related information will be taken under consideration by the Seattle City Council as part of their review of the proposed HCP.

**General Comment #45: Many commenters felt that the effects of Masonry Dam and the Landsburg Diversion Dam on sediment and large woody debris movement into the lower Cedar River were not adequately addressed in the Draft EA/EIS.**

Response: The existing role that the Masonry Dam and the Landsburg Dam have on the movement of sediment in the lower Cedar River is discussed in Section 4.2.3 of the EA/EIS. This analysis indicates that there would not be any environmental effects from either instream flow alternative as compared to the baseline "baseline" is the condition that

would occur if the proposed action were not to occur, i.e., managing to the non-binding IRPP flow regime).

There would be no significant change in sediment transporting flows (i.e., flood flows) under both scenarios from baseline conditions. As discussed in Sections 3.2.1 and 4.2.3 of the EA/EIS, the operation of Masonry Dam affects the floodplain of the lower Cedar River to some degree. Continued operation under either instream flow alternative would not be expected to change these affects on sediment transport or floodplains.

Because Chester Morse Lake is on the site of a natural lake, and the reach downstream of the lake is a bedrock canyon, neither streambed degradation nor armoring can occur downstream of Masonry Dam. In addition, the Landsburg Diversion is a low diversion which does not trap significant amounts of sediment. Sediment that does build up behind the diversion dam is flushed downstream yearly. Therefore, continued operation of the dam and diversion would be the same under both alternatives and would not cause degradation or stream armoring at Cedar Falls. Reductions in flow may affect sediment transport because decreases in the available stream power may result in aggradation. However, in the case of the Landsburg Dam, diversions are halted during peak flow events to protect drinking water quality. Even if diversions were not curtailed during peak flow events, they would represent a relatively minor proportion of total stream flow.

Most of the work that forms and maintains channel form and shape in gravel-bedded streams such the Cedar River is done during large storm events. In western Washington, these have been estimated as occurring roughly every 1.5 years. Neither flow alternative would alter baseline flood management practices and therefore would have no effect on peak flow frequency, sediment transport, channel morphology, or floodplain configuration.

The City and Services believe that there will not be a difference in large woody debris recruitment to the lower Cedar River between the two instream flow scenarios, and therefore this issue was not addressed in the EA/EIS. In addition, the topic was not raised during the EA/EIS scoping process. Under both flow alternatives, large woody debris in the Cedar River between the Cedar Falls Powerhouse and Landsburg will be monitored and managed both for its ultimate effect on drinking water supply and for improving fish habitat. For more details please see “Large Woody Debris Management Plan for the Mainstem Cedar River between the Cedar Falls Powerhouse and the Landsburg Diversion Dam” in Section 4.2.3 of the Draft HCP.

The City’s current policy has been to remove all large woody debris (LWD) at Landsburg to prevent damage to the diversion structure and water intake facility. In addition, LWD removal was believed to reduce navigational hazards to boaters and shoreline erosion on the lower river. Future improvements at the Landsburg Diversion will include the addition of a floodway on the left side of the diversion structure to pass high flows around the

structure. This addition would facilitate passage of LWD downstream. In view of the contribution LWD would make toward improving fish habitat in the lower Cedar River, the City will evaluate the floodway as a means of passing woody debris downstream of the Landsburg Diversion in the future.

**General Comment #46: Some commenters expressed concern over the appropriateness of the Instream Flow Incremental Methodology (IFIM) methodology and its adequacy for decision making.**

Response: The IFIM, originally developed by the USFWS, is currently in wide use worldwide to help guide the management of instream flows to protect aquatic resources in regulated rivers. The City of Seattle and the Services believe that, when properly employed, IFIM is a valuable tool. Independent assessments of the appropriateness of IFIM and summaries of its use nationally, internationally and in the state of Washington have been provided by Thomas R. Payne of Thomas R. Payne and Associates and Michael Barclay of Duke Engineering and Services and are included as new Technical Appendix 33 in Attachment I.

The IFIM was selected as the method of choice by the interagency CRIFC. The CRIFC directed all aspects of the study and study reporting. Use of the IFIM as a component of the collaborative instream flows studies that form the basis of the proposed instream flow regime is discussed in Sections 3.2, 3.4, and 4.4.3 of the Draft EA/EIS and Sections 3.2 and 4.4 of the Draft HCP.

The IFIM offers an array of components which may or may not be used as required by specific applications. The components used in the Cedar River Instream Flow Studies were selected and approved by the interagency CRIFC. The IFIM studies addressed the various life stages of the four anadromous salmonids present in the Cedar River today (Cascades Environmental Services 1991). PHABSIM analyses addressing the various life history patterns of chinook, coho and sockeye salmon and steelhead trout were one element of the collaborative IFIM study conducted by the interagency CRIFC. A number of additional analyses were conducted under the broader IFIM study framework including; reservoir and hydrologic modeling, redd scour vulnerability analysis, redd stranding analyses, steelhead incubation duration investigation, cumulative spawning analysis, adult chinook passage evaluation, edge habitat analysis, accretion flow analysis, preliminary sockeye fry emigration studies, spawner run-timing curves, and Lake Washington inflow contribution analyses.

The concept of maximum WUA from the PHABISM analyses was used as a foundation upon which to build other features that addressed additional important biological parameters analyzed by other components of the studies. Therefore, the proposed regime provides flows that are near or above the levels offering maximum WUA for all species and

life stages throughout the year. Because the selection of appropriate flows during much of the year considered issues other than WUA and recommended flows are generally well above levels required for maximum WUA, the use of time series habitat duration analyses, that are necessarily based upon WUA, were not deemed particularly useful by the CRIFC for its needs in this particular application.

The upper two-thirds of the Cedar River Watershed is owned by the City of Seattle and is managed for the purpose of protecting drinking water quality. The quality of the water passing downstream of the City's ownership boundary at the Landsburg Diversion Dam 21.8 miles upstream of Lake Washington is exceptionally high. The factors controlling the quality of water entering the Cedar River from the basin downstream of Landsburg are largely beyond the control of the City's water storage and diversion activities. This consideration, combined with the fact that water exiting the City's jurisdictional boundary is of exceptionally high quality, led to the decision by the CRIFC to forego macro-habitat analyses as part of the IFIM. In summary, the instream flow studies used as the basis for the proposed flow management regime addressed the various life history stages of chinook, coho and sockeye salmon and steelhead trout and included a number of components in addition to PHABSIM analyses. Please refer to the responses for General Comments #44, #47, and #48 for additional information.

**General Comment #47: Some commenters requested clarification of what fish species were included in the transect and data collection activities for the instream flow studies.**

Response: The information and methodologies used to develop the proposed instream flow regime are presented in Sections 3.3.2 and 4.4 of the Draft HCP. Detailed information about the application of the Instream Flow Incremental Methodology can be found in *Final Report: Cedar River Instream Flow and Salmonid Habitat Utilization Study* prepared by Cascades Environmental Services, Inc., in 1991 for the interagency CRIFC. This study and others used in the development of the proposed instream flow management regime, addressed the various life stages of four anadromous fish species in the Cedar River: chinook, coho, and sockeye salmon, and steelhead trout. Transect selection and data collection conducted as part of the PHABSIM analyses addressed spawning and juvenile rearing requirements for all four species of anadromous fish.

**General Comment #48: Some commenters questioned the effects of water withdrawals on the downstream water quality of the Cedar River. Concerns were expressed about the removal of cold water from the river and what the effects would be on downstream water temperature. Similar questions were asked about the effects of water withdrawal on the dilution of downstream pollutants.**

Response: Water quality impacts from the HCP proposal and all of the alternatives are adequately evaluated in Section 4.2 of the EA/EIS. This analysis has determined that the proposed HCP is not expected to have any effect on water quality downstream of the Landsburg Diversion Dam.

Water quality and quantity are both important components of aquatic habitat. The instream flow conservation strategy deals primarily with water quantity. The Draft HCP addresses water quality protection through the watershed management prescriptions described in Section 4.2. Water quality is generally excellent in the 12.5 mile reach of the mainstem within the City's ownership boundary due to relatively large inputs of high quality groundwater and because much of this portion of the basin has recovered substantially after being intensively logged early in the twentieth century. Although many factors downstream of the City's ownership boundary pose threats to water quality in the lower reaches of the river, these threats are partially offset by the relatively large inputs of high quality water from the Municipal Watershed.

Water temperatures downstream of the Landsburg Diversion Dam would be influenced mostly by the water temperature of tributaries in the lower water shed and the quality of the riparian habitat along the mainstem Cedar River between Landsburg and Lake Washington. The temperature profile of the water in the Cedar River as it passes over the Landsburg Diversion Dam and into the river downstream of the City's ownership boundary is similar to that in other protected watersheds in western Washington. The quality of the water is very high and serves as the primary unfiltered drinking water supply for over 1.2 million people.

The temperature and other water quality characteristics of the water released from Chester Morse Reservoir is believed to be quite similar to the characteristics of the surface water that flowed out of ancient Cedar Lake prior to construction of Masonry Dam earlier this century. Water released from the reservoir passes downstream approximately 14 miles though the protected watershed where riparian vegetation is predominantly 60 to 80 year old conifers which shade much of the river. Throughout the upper half of this reach, significant amounts of groundwater enter the river. A major source of this groundwater is believed to be return flow of water leaking through the porous glacial moraine that forms the northeastern shore of Masonry Pool. Thus, water arriving at the Landsburg Diversion Dam is typically cool during summer months and well within the ranges considered suitable for native salmonids.

Water quality in the 21.8 miles of river downstream of the Landsburg Diversion Dam outside the City's ownership boundary has been affected by significant forest cover removal and land development throughout the lower basin. The effects of groundwater inputs and substantial shading of the river within the City's ownership boundary will moderate some of the water temperature and water quality impacts of land use in the lower

basin outside the City's ownership boundary. By moving the flow compliance point from Renton, 20 miles upstream to Landsburg, and by guaranteeing higher instream flows for nearly the entire year, the proposed instream flow management regime ensures that the river below Landsburg will contain a greater relative proportion of high quality water from the protected watershed than under existing conditions.

**General Comment #49: Some commenters requested a clarification of the City's water claim on the Cedar River and an explanation of the implications of the language in the Instream Flow Agreement that indicates Ecology would agree to not adjudicate the City's claim.**

Response: When the City first began to divert water from the Cedar River in 1901, Washington State was still 16 years away from adopting its first statutory water code. Thus at the time Seattle's Cedar River water rights were first established, the common law doctrine of prior appropriation governed water rights matters. Eventually the state established both a permit process for granting new water rights, and an adjudication process for resolving disputes concerning such attributes of water rights as quantities and priority dates. In accordance with a new claim registration statute enacted in 1967, the City documented its water claim on the Cedar River in 1974, indicating a priority date of 1888 (based upon documentation of intent, and initial steps taken toward waterworks construction) and a right to divert up to 300 million gallons per day for municipal and industrial use. However, like most water right claims in Washington state, the City's Cedar claim has not gone through an adjudication process, which is a legal proceeding where the court determines how much of a claimed water right is valid and perfected.

There has been a long-standing controversy about whether any, all, or a portion of the City's water right, due to its seniority, is subject to the state's promulgated minimum flow regime for the Cedar River. In exchange for the City's commitment to a binding minimum flow regime, as well as the other commitments in the HCP, the state is agreeing not to initiate an adjudication process during the period of the HCP. Other language in the Instream Flow Agreement preserves the legal status quo for that period of time, leaving both parties free to resume their legal debate in the future.

**General Comment #50: Some commenters asked for greater clarification of the potential for future water withdrawals from the Cedar River especially at year 20 and beyond, and others requested more information on firm yield and conjunctive use of the Cedar River now and in the future.**

Response: As stated in the Draft EA/EIS, the City now calculates firm yield on a system-wide, conjunctive use basis. System-wide average annual firm yield assuming completion of the Tolt Filtration Facility is estimated to be 171 million gallons per day (MGD). All HCP flow commitments are assumed to be met in the firm yield analysis. In the firm yield

calculation, as in actual operations, the contribution from each supply source varies from year to year because of the significant hydrologic variability that affects each of the surface water sources. In 1998 for example, annual system-wide demand averaged 150 MGD, and Cedar diversions were 98 MGD. At 171 MGD, the yield model indicates that the Cedar contribution would range from 106 to 124 MGD, averaging 115 MGD. This range of diversions from the Cedar could be expected when system-wide demand grows to 171 MGD, if the supply system remains in its current configuration. If other sources become available by then, the contribution of Cedar water would be expected to decrease (see next paragraph). The City's latest demand forecasts indicate that demand will reach 171 MGD around 2020.

When additional source of supply becomes available to serve demand, as will occur when the Tolt Filtration Facility and the proposed Tacoma-Seattle Intertie come online, an immediate result will be a decrease in demand placed on the Cedar River. The City's operations models indicate that the Tolt Filtration Facility will decrease Cedar demand by an average of 2 MGD when it first comes on line, and the Tacoma-Seattle Intertie (currently scheduled for 2004) will decrease Cedar demand by an additional 13 MGD. This water will be available to the river until increases in system demand require average annual supply from all sources, including the Cedar River, to increase. When demand increases to the point where the full 14 MGD firm yield of the Tacoma-Seattle Intertie is needed, the annual average amount of Cedar River diversions needed to realize the system yield of 185 MGD ( $171 + 14$ ) would be about 114 MGD. In some years, use of the Cedar would be slightly less, in other years it would be slightly more. In effect, the importation of Green River water into the south end of the Seattle regional supply system decreases the use of the Cedar River for water supply purposes.

Text and graphical information has been included in this response package to better describe the expected flows under the instream flow alternatives. Figure 3.2.7 of the EA/EIS shows the relationship between historic flows in the river and the City's diversions. For the last 50 years, annual diversions have ranged between 85 and 144 MGD, averaging about 118 MGD over that period. To develop the information describing expected future flows, it was assumed that annual diversions over the 50-year term of the HCP will continue to vary within a wide range and will average approximately 118 MGD over the long run. At this average level of diversion, the average annual amount of water left in the river will be about 432 MGD. This is a projected amount of water diversions consistent with the City's intent (see the IFA, Technical Appendix 27) to "minimize the use of the Cedar River to serve future regional growth, while recognizing that conjunctive use of the Cedar River may be important to achieving regional water supply efficiencies." Water withdrawals from the Cedar River are not expected to increase significantly from today's levels during the first 10 years of HCP implementation because of ongoing conservation efforts, the new "1 percent Conservation Initiative" (described in the response to General

Comment #40), and the completion of the Tolt Filtration Facilities in 2000. Please refer to the response for General Comment #49 above.

#### Expected Flows in the Cedar River Resulting from the Instream Flow Alternatives

This section is a technical discussion that provides additional information on the expected future flows in the Cedar River resulting from the proposed HCP instream flows and the No Action - IRPP Alternative.

A 51-year historical record of hydrologic conditions, from water year 1946 to 1996, was used to model expected flow scenarios in the Cedar River at Renton under both the proposed HCP and the No Action - IRPP Alternative instream flow regimes. Historical actual gauged daily flows for the Cedar River at Renton are from the USGS stream gauging program. For mean daily flows under the proposed HCP instream flow regime, flows are the same as the historical gauged flows, or are assigned HCP minimum instream flow values if the historical gauged flows are less than the HCP minimum instream flow regime. The quantity of water required to bring flows up to the HCP minimum instream flow values is assumed to be taken from water stored in the reservoir behind Masonry Dam in the upper watershed. HCP supplemental flow values are also similarly applied as applicable to specific time periods and hydrologic conditions. For mean daily flows under the No Action - IRPP Alternative, flows are the same as the historical gauged flows, or are assigned IRPP minimum instream flow values if the historical gauged flows are less than the IRPP minimum instream flow regime (again, this water is assumed to be taken from reservoir storage). An exception is that from water year 1980 through 1996, flows are the same as the historical gauged flows to reflect the non-binding nature of the 1979 IRPP minimum instream flow regime.

Also, for the last 50 years, annual diversions for water supply from the Cedar River have ranged between 85 and 144 MGD, averaging about 118 MGD over that period; see Figure 4-9. To develop the information describing expected future flows in the Cedar River under the proposed HCP and the No Action Instream Flow Alternative, it is assumed that annual diversions over the 50-year term of the HCP will continue to vary within a wide range and will average 118 MGD for both scenarios.



**Figure 4-9.** Cedar River Water Use in Metropolitan Seattle, 1949 to 1998 Annual Population Served, 1960 to 1998

### Wide Variation of Streamflows Above Minimum Instream Flows Will Continue in the Cedar River Under Both the Proposed HCP and No Action Instream Flow Alternatives

Over the 50-year term of the proposed HCP, actual daily flows in the Cedar River will range well above the minimum instream flows much of the time under both the proposed HCP and No Action instream flow alternatives. And during times of natural low flow periods, unlike the No Action alternative, the proposed HCP instream flow would require the City of Seattle to ensure that flows measured at the USGS Stream Gage No. 12117600 below Landsburg, at river mile 20.4, would not drop below certain minimum flow levels critical to protecting the biological needs of the Cedar River fisheries. In addition, the City's HCP proposal offers to provide substantial supplemental flows above minimum flows to meet downstream fisheries objectives at key times throughout the year. It can be expected that the City of Seattle's annual average diversions from the Cedar River for water supply will continue to average about 118 MGD over the 50-year term of the proposed HCP, as similar to the City's historical range of annual diversions in the last 50 years.

Figures 4-10, 4-11, 4-12, 4-13, and 4-14 provide comparisons between the proposed HCP and the No Action Instream Flow Alternative for expected daily streamflows in the Cedar River at Renton at the statistical 10th, 25th, 50th, 75<sup>th</sup>, and 90th percentiles (%ile), respectively. These figures illustrate the range of actual flows expected over the 50-year term of the proposed HCP. Under both the Proposed HCP and the No Action Instream Flow Alternatives, these figures clearly show that the range of actual flows that will remain in the Cedar River will be well above minimum instream flow values. In most years, the Proposed HCP instream flow regime will result in more water during low flow periods. Historical actual gauged daily flow statistics from the USGS Stream Gauge No. 12119000, Cedar River at Renton, are also shown in the figures for comparison.

As described in Section 3.2.1 of the Draft EA/EIS, and in the discussion on natural flows, wide variations of streamflows exist under baseline conditions and would exist under natural conditions. The streamflow statistics above demonstrate that the wide variation and magnitude of flows in the Cedar River will continue under both the proposed HCP and No Action Instream Flow Alternatives.

To further illustrate the wide variation, fluctuation and magnitude of actual flows expected in the Cedar River, Figures 4-15, 4-16, and 4-17 provide graphs of mean daily flows expected under each instream flow regime alternative under different hydrological conditions expected in the Cedar River watershed. During natural low

**Figure 4-10.** 10<sup>th</sup> Percentile of Expected Daily Flows in the Cedar River at Renton –  
Statistics based on Water Year 1946 to 1996 Hydrologic Conditions

**Figure 4-11.** 25<sup>th</sup> Percentile of Expected Daily Flows in the Cedar River at Renton – Statistics Based on Water Year 1946 to 1996 Hydrologic Conditions

**Figure 4-12.** 50<sup>th</sup> Percentile of Expected Daily Flows in the Cedar River at Renton – Statistics Based on Water Year 1946 to 1996 Hydrologic Conditions

**Figure 4-13.** 75<sup>th</sup> Percentile of Expected Daily Flows in the Cedar River at Renton – Statistics Based on Water Year 1946 to 1996 Hydrologic Conditions

**Figure 4-14.** 90<sup>th</sup> Percentile of Expected Daily Flows in the Cedar River at Renton –  
Statistics based on Water Year 1946 to 1996 Hydrologic Conditions

**Figure 4-15.** Cedar River at Renton – Expected Daily Flows Under Water Year 1952  
Hydrologic Conditions



**Figure 4-16.** Cedar River at Renton—Expected Flows Under Water Year 1982  
Hydrologic Conditions

**Figure 4-17.** Cedar River at Renton – Expected Daily Flows Under Water Year 1987  
Hydrologic Conditions

flow periods, the proposed HCP minimum instream flow regime assures that flow levels will not drop below levels that are critical to the biological needs of the Cedar River fisheries.

And unlike the No Action Alternative, the Proposed HCP Alternative would provide additional flows for specific fisheries needs over and above the minimum instream flow regime requirements. Specifically, between February 11 and April 14, the City of Seattle would set a goal to supplement minimum instream flows by 105 cfs 70 percent of the time in normal years for sockeye out-migration needs. Between June 17 and August 4, the City of Seattle would provide 2,500-acre feet of water in all normal years and another 3,500-acre feet of water in 70 percent of all normal years. Known as blocks of water, the water releases would be specifically allocated over this time period for the purposes of protecting steelhead redds. For sockeye and chinook spawning needs, the City of Seattle would, under certain conditions, supplement normal minimum instream flows by 38 cfs between September 15 and 22, and by 115 cfs between September 23 and 30. And between October 8 and December 31, the City of Seattle would follow in six of nine normal years, on average, a high normal flow regime that is 55 cfs higher than the low normal flow regime.

Historical actual gagged daily flows from the USGS Stream Gage No. 12119000, Cedar River at Renton, are also shown in the figures for comparison.

#### Comparison of Expected Flow Duration Curves for the Cedar River Under the Proposed HCP and No Action - IRPP Instream Flow Alternatives

Another helpful way to look at the expected variation and probability of water flow amounts in the Cedar River is by graphing flow duration curves. These curves show the percent of time that flows are equaled or exceeded in the flow record. Figures 4-18, 4-19, and 4-20 show seasonal flow duration curve comparisons between the proposed HCP and No Action instream flow alternatives for expected streamflows in the Cedar River at Renton for the summer/fall reservoir drawdown (June 17 to October 31), winter flood (November 1 to February 28), and spring reservoir refill (March 1 to June 16) time periods. Flow duration curves for the historical actual gagged flows from the USGS Stream Gage No. 12119000, Cedar River at Renton, are also shown in the figures for comparison purposes. The flow values shown in each of the figures are the flow volumes expressed as average flows in cubic feet per second over the specified time period. During the summer/fall drawdown period, the proposed HCP instream flow regime provides more water in the Cedar River than the No Action Alternative and the historical actual gagged flows. All three curves are essentially the same for the winter flood and spring refill periods.

**Figure 4-18.** Cedar River at Renton – Expected Flow Duration Curves for the Drawdown Period (June 17 to October 31)

**Figure 4-19.** Cedar River at Renton – Expected Flow Duration Curves for the Winter Period (November 1 to February 29)

**Figure 4-20.** Cedar River at Renton – Expected Flow Duration Curves for the Refill Period (March 1 to June 16)

From an operational perspective, the Proposed HCP Alternative would protect instream flows during any period of low flow and would have little effect on the range of streamflow variations expected in the higher flow ranges seen in past and recent streamflow records.

The resulting patterns and magnitudes of expected flow in the Cedar River clearly indicate that the City's ability to manage and control downstream flows has limitations. As described in Section 3.2.1 of the EA/EIS, the City does not have the ability to trim and/or augment flows downstream of Landsburg in such a discretionary way that people might be aware of on other regulated rivers. The reservoir storage capacity behind Masonry Dam, located in the Cedar River headwaters, is small compared to the high inflow volumes associated with the upper Cedar River Municipal Watershed. Masonry Dam was not originally built for flood control purposes and although Seattle's dam management strategies include incidental flood control operations to benefit the lives of people and their property as well as to benefit the Cedar River fisheries and downstream habitat, the City's ability to control downstream flood flows has its limitations and is a complex operational activity.

By the same token, the reservoir's small size also limits the City's ability to make additional discretionary reservoir releases at certain times of the year to supplement low flows in the river without creating undue risks of drawing down the reservoir to levels that would make it difficult to provide water supply and instream flows required for the biological needs of the fisheries.

The City's ability to manage and control flows at the Landsburg Diversion Dam is also limited. This diversion dam is too small to provide significant storage or reregulation of flows. The Landsburg Dam is operated in a run-of-river mode, passing all flows over the dam which are not diverted for water supply. During periods of high turbidity in the river, or during facility maintenance, diversion may cease altogether.

Finally, large unregulated, that is, natural streamflows tributary to the Cedar River between Masonry Dam and the Landsburg Diversion Dam, as well as tributary natural streamflows downstream of Landsburg, contribute to the total volume of water seen in the Cedar River. This aspect of the Cedar River system accentuates the limitations of the City's ability to control certain high flows and downstream flooding events with its dam facilities.

**General Comment #51: Several people commented on the use of dead storage water in Chester Morse Lake. People were concerned about the effects of withdrawing dead storage water on bull trout, pygmy whitefish, sedge meadows, wetlands, and their associated wildlife.**

Response: It is important to note that use of dead storage water from Chester Morse Lake via the Cedar Permanent Dead Storage Project is not part of the instream flow component of the HCP and will not be a covered activity under the ITP. Instead, the proposed HCP would simply provide funding to evaluate the feasibility and all of the environmental consequences of using dead storage from the reservoir for drinking water purposes and augmenting flows for fish. No incidental take allowance of listed species is being requested or granted for this provision in the HCP. Adding the Cedar Permanent Dead Storage Project to the ITP and HCP, following the completion of the feasibility study, will require a formal request by the City for a Major Permit Amendment. NEPA review will be required for any and all major amendment proposals. The proposed feasibility study is described in Section 4.4 of the Draft HCP.

Potential benefits exist for enhancement of both downstream fisheries and municipal water supply through the development of permanent non-emergency access to water stored below the natural gravity outlet of Chester Morse Lake. As part of the proposed HCP, the City would sponsor the evaluation of the Cedar Permanent Dead Storage Project, including necessary environmental, engineering, and financial studies. Engineering studies would address design options, siting, water quality, geology and hydrology, yield analysis, costs and economics, constructability, reliability, and other factors. Environmental studies would address potential effects of the project on resident fish and wildlife populations and wetlands, and would evaluate alternative mitigation measures. This feasibility study would commence not later than the end of HCP year 1 and would require not more than 5 years to complete. Total costs for HCP years 1 through 5 would not exceed \$700,000 for the engineering, water quality, and economic studies and \$745,000 for the environmental studies.

If the City decides to proceed with the project, the Parties to the IFA have agreed to work collaboratively to evaluate whether the environmental impacts can be reasonably and cost-effectively mitigated. Further public review under SEPA and, if necessary, NEPA would occur as well. The Cedar Permanent Dead Storage Work Group will advise the City about all environmental evaluation studies and follow-up monitoring and research. At a minimum, impacts evaluated would include potential environmental effects on bull trout, pygmy whitefish, sedge meadows, wetlands, and their associated wildlife. If environmental studies indicate that such mitigation is feasible, the Parties have agreed to negotiate in good faith amendments to the IFA to apportion between instream flows and municipal water supply the additional water benefits made available by the project, including consideration of additional water that may be needed to improve survival of fish at the Ballard Locks.

**General Comment #52: Some commenters felt the effects of the HCP on flooding in the Cedar River were not adequately addressed in the draft EA/EIS.**



Response: The City of Seattle and the Services disagree. The environmental effects of the HCP proposal on flooding in the Cedar River are adequately addressed in Sections 4.2 and 4.9 of the EA/EIS. The implementation of the proposed HCP would not alter the risk of flooding in the Cedar River or Lake Washington.

**General Comment #53: Some commenters considered that the EA/EIS fails to address the cumulative impacts that implementation of the proposed flow regime in the HCP would have on water levels in Lake Washington and water movement through the Hiram Chittenden locks.**

Response: The City of Seattle and the Services acknowledge that the Cedar River is an important component of the total annual inflow to Lake Washington. However the City does not direct the allocation of the lake's outflow to the various requirements for navigation, saltwater management and fish passage at the Ballard Locks which constitute the outlet to Lake Washington. Management of water levels in Lake Washington and water movement through the ship canal and locks is the responsibility of the United States Army, Corps of Engineers (Corps).

During the interagency instream flow discussions between 1993 and 1997, the parties to the negotiations, including the Corps, discussed water flow requirements at the Ballard Locks at great length. As a result of these discussions. The final proposed instream flow management regime described in the Agreement In Principle for the Cedar River Watershed Habitat Conservation Plan (signed by the Corps) and subsequently proposed in the draft HCP documents includes provisions to ensure that substantially more water would flow into Lake Washington during the Corps' key period of concern from June 17 through September 30. Please see Table 4.4-8 of the HCP. This additional water will give the Corps more flexibility to manage for fish protection. Text and graphical information has been included in this response package to better describe the expected flows under the instream flow alternatives. Please see Section 4.4 of the Draft HCP and Sections 3.2 and 4.4.3 of the EA/EIS for more detailed information. Please refer to responses to General Comments #44 and #64.

**General Comment #54: Some commenters asked who would be the responsible person that would oversee and direct implementation of the HCP.**

Response: The City of Seattle will be responsible and accountable for successful implementation of the Cedar River Watershed HCP. The Services will be responsible for enforcement of the City's commitments through the ITP. The state departments of Ecology and Fish and Wildlife also have enforcement authorities as spelled out in the Instream Flow Agreement and the Landsburg Mitigation Agreement. In addition, the HCP established a fairly elaborate structure for oversight of various activities, which includes various oversight committees with broad-based membership. Oversight and decision-making mechanisms

are described in Section 5.4 of the Draft HCP, as well as in the HCP Implementation Agreement (Technical Appendix 1), the Instream Flow Agreement (Technical Appendix 27), and the Landsburg Mitigation Agreement (Technical Appendix 28).

**General Comment #55: Some commenters suggested that a variety of other agencies or interest groups, such as the Muckleshoot Indian Tribe and King County, should be participants on the various oversight and advisory committees proposed as part of HCP implementation.**

Response: Please see response to General Comment #54 above. Under the proposed HCP, many or all of these agencies and groups would already be members of some of the oversight committees. However, these comments will be provided to the Seattle City Council for consideration in decisions regarding changes to the HCP prior to submission of the final ITP application to the Services.

**General Comment #56: Some commenters suggested that non-government organizations should be considered for implementing parts of the plan.**

Response: Please see responses to General Comments #54 and #55 above with regard to oversight committees and implementation responsibility. Under the proposed HCP, the City can determine how mitigation and conservation measures are implemented. One approach would be to use conservation corps groups, volunteers, or other non-government organizations to assist with implementing some monitoring and restoration projects. The City expects to try such approaches, if feasible, during implementation of the HCP.

**General Comment #57: A variety of commenters indicated that the monitoring programs and corresponding adaptive management programs should have complete protocols identified for review prior to their approval by the City and federal governments.**

Response: The monitoring and research program is presented in Section 4.5 of the Draft HCP. Sections 4.5.7 and 5.5 provide detailed information on the City's proposed adaptive management strategy for plan implementation.

In general, adaptive management is an approach that incorporates monitoring and research to allow projects and activities, including projects designed to produce environmental benefits, to go forward in the face of some uncertainty regarding consequences. The key provision of adaptive management is the ability and willingness to change adaptively in response to new understanding or information after an action is initiated.

Although some commenters have suggested that the City should develop detailed protocols and criteria to address any potential outcome as part of the adaptive management program, developing detailed protocols in advance for all of the hundreds of proposed activities and restoration projects over many different types of sites would not be feasible or even advisable. Furthermore, there are circumstances in which management can be “adaptive” without such a rigorous application of criteria for adjustments developed *a priori*. The City believes that a more flexible approach may be most appropriate for decision-making bodies that deal with real-time decisions and/or a variety of decisions that collectively affect species covered by this HCP.

A more flexible approach may also be most appropriate for mitigation or conservation programs that have many elements or projects, each of which has an idiosyncratic set of design constraints and objectives within the overall conservation objectives of the HCP, as mentioned above. In these less well-defined or more numerous situations, an important concept underlying a successful application of adaptive management in this HCP over the long term is that *cumulative learning* take place, so that decisions and projects can become more effective over time with respect to the conservation objectives of the HCP. Intensive site or project evaluations will be needed for development of such protocols initially, and protocols and criteria are very likely to change over time as a *result* of cumulative learning under the adaptive management program. In lieu of developing such detailed protocols in advance, the City has proposed specific biological objectives that are intended to clearly indicate intent, with the use of oversight committees, interdisciplinary teams, and consultation with experts to provide ideas, guidance, and feedback. In addition, the Services have responsibility to ensure that the conservation objectives of the HCP are being achieved.

The use of adaptive management within the HCP would provide flexibility to modify specific programs to respond to specified monitoring results, changes in circumstances, or new scientific information, if applicable. It would be applied, in general, to meet the long-term, overall biological goals of the HCP and to ensure that conservation strategies are producing the desired results. For any application of adaptive management in the HCP, no changes to mitigation or conservation strategies would be made that reduce the net biological benefit of the HCP.

For some specific elements of the HCP, written adaptive management plans will be developed on a particular schedule (Section 5.5.1), but formal written approaches will not be developed for those cases where adaptive management is used simply as a general tool for adaptively responding to new information or understanding, or for changed circumstances related to environmental events (Section 4.5.7 of the Draft HCP).

**General Comment #58:** Many people commented that they would be willing to pay a modest rate increase to pay for the costs of implementing the HCP. In addition, higher water costs would encourage water conservation. One person suggested that season-based rate structures would promote water conservation efforts during the summer. Many people disagreed with the use of commercial logging in portions of the Watershed as a means to finance restoration in areas of the Watershed that were previously logged. One person commented that water supply costs should not be a major factor. Several people suggested that alternatives should be available to help defray increased rates for low income customers.

Response: Many commenters voiced different opinions over how they felt the City of Seattle should pay for implementation of the proposed HCP. Under the ESA, the City of Seattle is only required to make a legally binding commitment to pay for the program. The City does not need to specify exactly how funding for the program would be provided. How to fund the HCP is a local decision. Preferences for different funding alternatives have been noted and this information will be made available to the City Council for their consideration when deciding how to pay for the HCP.

**General Comment #59:** Some people pointed out that the modest rate increase calculated for the implementation of the HCP was only one of several rate increases that are likely to occur over the next several years and that these cumulative rate increases could be substantial.

Response: Without the HCP, water rates are projected to increase at a rate of about 8 percent per year over the next 5 years to meet the costs of increased water treatment requirements, requirements for capping reservoirs, and pipeline upgrades. This would raise a typical residential customer's **annual** bill from \$189 in 1999 to \$277 in 2004.

Additional rate impacts from the HCP proposal and other Watershed Management alternatives are discussed in Section 4.10 of the EA/EIS. The actual rate impact would depend on how the City Council decides to pay for the HCP. For example, if the City Council decided to use timber revenues potentially available under Alternative WM-2, then there would be no increases in water rates from HCP implementation. If, on the other hand, the City Council used revenues from the sale of surplus land and adopted a no commercial logging approach, such as described by Alternative WM-5, annual residential water bills in the year 2001 could increase by about \$3.63 for a typical residential customer in Seattle. The no-commercial logging alternative would change the 5-year outlook from an 8 percent per year rate increase to an 8.3 percent per year rate increase. The typical annual residential bill (\$189 in 1999) would increase to \$277 in 2004 under the WM-2 Alternative and would increase to \$281 in 2004 under WM-5, the No Commercial Logging Alternative.

**General Comment #60:** One person suggested that people who obtain their drinking water from wells should not be exempt from sharing the costs of the HCP. It was also suggested that SPU customers were unfairly subsidizing lakefront property owners because water levels are lowered a foot or more in the winter to protect docks from storms. One commenter suggested that this water could be used at a lower cost for other residential consumption.

Response: Please see response to General Comment #58 concerning funding of the HCP. There are few users of well water within the city limits (none using wells for potable water purposes, so far as is known). Those there are would not be using water tributary to the Cedar, and the City lacks a legal mechanism to impose HCP costs on well users outside the City. Levels of water in Lake Washington are controlled by the Corps through its operation of the Hiram Chittenden Locks. Please see response to General Comment #53 for further discussion. The City sees no connection between the protection of lakefront dock owners and its water rates.

**General Comment #61:** Some commenters suggested that funding alternatives should emphasize non-commercial grants (e.g., Earthwatch, Nature Conservatory). Other commenters suggested that a non-profit fund could be developed to help finance the plan from tax-deductible donations. Some commenters felt that all of the costs of the HCP should be paid for by the City through water rates and electricity rates. At least one commenter felt it would be inappropriate for the City to pay for the HCP through grants.

Response: Please see response to General Comments #54 and #58. These comments will be provided to the Seattle City Council for consideration in decisions regarding funding of the HCP and changes to the HCP prior to submission of the final ITP application to the Services.

**General Comment #62:** Some commenters suggested that certain costs (e.g., road maintenance, permanent use of dead storage in Chester Morse Lake for water supply) are being claimed under the HCP, but are actually unrelated to the HCP.

Response: As described in Section 4.2.5 of the Draft HCP, the road maintenance costs included in the HCP represent increases in current commitments for maintenance that are expressly intended to reduce sediment loading to streams, consequently improving aquatic habitats. Thus, this activity has real conservation benefits and is an appropriate part of the HCP. Similarly, as described in Section 4.2.4 of the Draft HCP, precommercial thinning would improve forest structure and habitat development for species dependent on older forests, fostering biological diversity on non-reserve lands.

As described in Section 4.5.6 of the Draft HCP, the commitments in the HCP regarding permanent use of dead (water) storage in Chester Morse Lake are only for evaluation, not implementation, of a project that would potentially use some of the water in the dead storage zone of the reservoir for a combination of improving minimum instream flows for fish and water supply. Prior to implementation, the project would require a NEPA analysis, agreement by the parties to the Instream Flow Agreement (Technical Appendix 27) to changes in instream flows, and amendment of the HCP. About half of the cost of the proposed evaluation is for environmental studies that will provide information valuable for reservoir management, regardless of whether the permanent project is built. For example, these studies include investigations of the potential effects of changes in reservoir operations on bull trout. Even the engineering evaluations have net potential conservation benefits, because construction of the project will only occur if minimum instream flows are improved and impacts in the reservoir can be mitigated.

**General Comment #63: Some commenters expressed concern or questions about the proposed caps on mitigation spending that are part of the City's proposed HCP. For example, there are cost caps on construction, monitoring, studies, and adaptive management monitoring. There was concern that the level of funding might not be adequate, that some objectives of the HCP might not be met, and that other agencies might have to bear a financial burden. Additionally, there was concern that funding for certain HCP components might be reduced so that money could be used for an unrelated component.**

Response: Funding estimates in the Draft HCP were reviewed by biologists with the Services, WDFW, Ecology, the Corps, and Muckleshoot Indian Tribe. The levels were agreed upon by the five state and federal agencies listed in an Agreement in Principle in March 1997. The funding levels in the HCP are for two kinds of activities: ones that are scalable and ones that are finite. Examples of scalable activities include projects to add large woody debris to many streams over time and to establish different species of plants in the different areas of the ecological reserve to foster biological diversity. The amount of such activities was estimated in the HCP based on a comprehensive watershed assessment (Technical Appendix #15), which included an assessment of the need for habitat improvement and averages and ranges of expected costs per unit area or stream length, based on experience. The actual amount of the activity accomplished during the term of the HCP will depend on the actual costs of such projects, but an overall net benefit will be obtained in any case. Some research and monitoring efforts are also scalable in that the final study design can depend on the final costs for constituent study components without compromising the overall effectiveness of the monitoring activity. The City and Services believe that the level of funding for such activities is appropriate for this HCP, and will produce substantial benefits for covered species.

Examples for finite activities include construction of fish passage facilities at the Landsburg Diversion Dam and some studies that have relatively fixed costs. For these elements of the HCP, the City worked closely over the past four years with the Services, WDFW, Ecology, Corps, and Muckleshoot Indian Tribe to develop cost estimates. The levels were agreed upon by the five state and federal agencies listed in an Agreement in Principle in March 1997. All facility cost estimates were performed by engineering consultants, reviewed by experts in the agencies, and adjusted as needed. In the case of the fish passage facilities at Landsburg, funding was increased as a result of a second estimate of construction costs, and a contingency fund was added in case the costs are found to be higher than estimated. Similarly, all cost estimates for research and monitoring were reviewed and agreed upon by agency biologists during development of the HCP proposal.

As described in Section 5.3.2 of the Draft HCP, the proposed HCP does allow flexibility to shift funds within eight categories of activities, such as watershed management or instream flow research and monitoring. However, such shifts cannot be done in a manner that reduces the City's ability accomplish any elements of the HCP or compromises the overall purposes and objectives of the HCP. Within each of these eight categories, the City has to provide the full amount of funding, so any savings for one element in that category must be made available for other activities in that category. As described in Section 5.3.2, significant shifts of funds require agreement by other parties to the Implementation Agreement or related agreements, as appropriate.

Sections 4.2, 4.3, and 4.4 of the Draft HCP include a large number of performance objectives that the City is obligated to meet, and the monitoring program (Section 4.5) is designed to provide information related to those objectives. Implementing the HCP is the responsibility of the City of Seattle, and other agencies would not be required to fund studies that the City must conduct under the HCP.

In sum, the City and the Services believe that the funding provided to implement the HCP is adequate to accomplish the conservation activities identified in the plan. Specific comments about individual items will be made available to decision-makers during their review of potential changes to the HCP.

**General Comment #64: Some commenters felt that the HCP and draft EA/EIS needed to demonstrate better coordination with regional water supply efforts, such as the Seattle Tacoma Intertie.**

Response: The City of Seattle believes that the Draft HCP has been well coordinated with other regional water supply planning efforts. The commitments that the City is proposing to undertake in the HCP have informed and been coordinated with such regional water planning efforts as the development of the Cascade Water Alliance, the conceptual

agreements for the Tacoma-Seattle Intertie, development of the water grid proposal brought before the state legislature in 1999, the regional response to the ESA listing of Puget Sound chinook salmon, Corps of Engineers' section 1135 and 216 studies and projects in Lake Washington, and the development of the next update to Seattle's Water System Plan (currently under development).

The following information is provided to clarify the discussion in the EA/EIS regarding the potential impacts of the proposed HCP (specifically the instream flow component) when added to these ongoing and reasonably anticipated future regional water supply projects and planning efforts:

Cascade Water Alliance (CWA) – This potential new regional water agency is described in Section 3.9.2 of the Draft EA/EIS. In agreements that are forming the contractual arrangements between Seattle and CWA, a portion of the firm supply from the Seattle system will be purchased by CWA. Non-firm water may be made available, but only if instream flow commitments are first satisfied. Section 4.9.4 of the Draft EA/EIS describes the effect of the instream flow alternatives on the availability of non-firm water. In general, the No Action Instream Flow Alternative (IF-1) allocates less water to guaranteed flows, and more water is left unallocated, than with the HCP Instream Flow Alternative (IF-2). Because the firm water yield is the same under both alternatives, there is no effect on water supply or the City's use of unallocated water other than the changes in instream flow commitments. It should be noted, however, that the formation of the CWA is not assured at this time.

Tacoma-Seattle Intertie (TSI) – The TSI is a potential new water supply project that Seattle and its regional wholesale customers may participate in. The cities of Seattle and Tacoma have signed a conceptual agreement regarding aspects of the project, including operations, ownership, and financing. The TSI and other potential water supply projects are the subject of a programmatic SEPA process that is currently underway. If the City moves forward with the TSI, project related impacts will be analyzed in a project-specific SEPA EIS. All HCP provisions would continue to be met if TSI were developed. See the response to General Comment #50 for a discussion of expected Cedar River flow impacts from TSI. The Draft HCP defines a set of instream flow commitments that Seattle would meet whether or not any additional supply sources are added to the regional system. In general, the potential yield of future supplies would be more constrained by IF-2 than by IF-1. See Section 4.9.4 of the Draft EA/EIS for a more detailed discussion.

Seattle Public Utilities' Water System Plan – Most public water systems must prepare and periodically update Water System Plans and submit them for approval to the Washington Department of Health. Seattle is planning to submit its plan update in 2000. The provisions of the HCP will inform several sections of the plan, including source of supply analysis; water right analysis; system reliability analysis; and watershed control program.



Other than the changes in constraints associated with the proposed instream flow regime described above, there are no effects of the HCP on the Water System Plan. See Section 4.9.4 of the Draft EA/EIS for a more detailed discussion.

Regional response to Endangered Species Act listings – Puget Sound chinook salmon have been listed by the NMFS as “threatened.” The City of Seattle has been actively involved with the Tri-County effort that includes the counties of King, Snohomish, and Pierce, as well as major cities, tribes, citizens, and businesses in the area. These parties have collaborated under the Tri-County umbrella to develop an early action package of projects, programs and commitments to immediately address causes of species decline. The NMFS is currently reviewing these early proposals and has scheduled another round of discussions with the Tri-County participants to further refine the proposals. The HCP will be a cornerstone of the City’s ESA response. However, a rule regarding incidental take of chinook salmon has not been promulgated and adopted by the NMFS. Its nature cannot be reasonably anticipated at this time, but the NMFS is reviewing this HCP to ensure compliance with the ESA.

Corps of Engineers’ Projects in Lake Washington and Ship Canal Project – See General Comments #50 and #53.

Demand growth and land development – The HCP itself would not affect demand growth or development, except as discussed in Section 4.9.4 of the Draft EA/EIS regarding firm yield and availability of non-firm water. The instream flow provisions of the HCP will assure commitments to the quantity and quality of water leaving the municipal watershed. See response to General Comment #50 for a discussion on expected flows, and the response to General Comment #48 for a discussion on water quality.

## 4.2 Cross-Reference for Individual Commenters

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

Commenter Name	City	Written (W) or Oral (O)	Applicable General Comment/Response
		Comment	Number(s)
Aagaard, Ann	Bothell	W	11, 20, 39, 40, 58
Ahten, H.	NA	O	20
Ahten, Herbert	Bellevue	W	20
Anderson	Seattle	W	20
Anderson, Diane and	Seattle	W	Comment noted.

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Doug Keyes			
Anderson, Ernest	Bellevue	W	20
Anderson, Robert	Lynnwood	W	36, 48, 58, 56, 20, 11, 49
Andrews, Lisa	Seattle	W	11, 20
Arvidron	Seattle	W	11, 20, 39, 40, 58
Atcheson, D.	NA	O	11, 38, 20, 58
Backus, A.	NA	O	11
Ballard, J.	NA	O	Comment noted.
Bannon, Kevin	NA	W	Comment noted.
Barrie, Alan R.	Gig Harbor	W	20
Baur, Sheely	Kent	W	11, 58, 20
Beardslee, K.	NA	O	5
Beardslee, Kurt	Duvall	W	5
Bearwood, G.	NA	O	20
Becker, B.	NA	O	20, 58, 11
Becker, William R.	Seattle	W	11, 12, 58
Bell, Cathy	Seattle	W	11, 58
Bell, Cathy	Seattle	W	11
Benson, Brian	Seattle	W	11
Benson, Karen	Seattle	W	11, 58, 20
Berres, Cindy	Seattle	W	20, 11
Blairs, Bill	Seattle	W	11, 20, 58
Bliss, Conan	Seattle	W	11, 12, 58
Booth, Beatrice	Seattle	W	11, 58, 20, 40
Boyar, Ethel	Seattle	W	11, 20, 58
Boyar, Mark and Gretchen Weitkamp	Seattle	W	11, 58, 12, 20, 40, 39
Braatne, Jeffrey H.	Seattle	W	38
Brockenbrough, J. Scott	Seattle	W	11, 12, 39, 40, 58
Brocksmith, R.	NA	O	20, 30
Brocksmith, Richard	Seattle	W	20
Brocksmith, Richard	Seattle	W	20, 14, 39, 11
Burton, Joan	Seattle	W	11, 12, 27, 39, 44, 58, 20
Cady, Pamela	Seattle	W	58, 11
Carlin, P.	NA	O	58, 11, 20, 39, 36, 44
Carlin, Peter	Seattle	W	11, 20, 39, 44, 36
Carlson, Jay	NA	W	11, 58
Carlson, Mr. And Mrs.	Seattle	W	13

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Richard			
Carlson, Robert K.	NA	W	11, 20
Carvso, Debbie	Seattle	W	11, 39, 20, 58
Cobert, Stephen	Bellevue	W	11
Collier, Carrie	Seattle	W	11, 58
Columbo	NA	O	23, 20, 11, 58, 37
Conley, B.	NA	O	20
Cooper, Jonathan A. and Diane E. Doles	Seattle	W	11, 20, 58
Corson, James M.	Seattle	W	11, 20
Cummings, Ann	Seattle	W	11, 58
Denny, Brewster	Seattle	W	20, 11, 12, 58
Dodge, Tad	Kirkland	W	11, 20, 58, 36
Donohue, Joanne and Jeff Stanly	Seattle	W	58, 11, 20, 36
Doremus, Lynn	Seattle	W	44, 20, 27, 39, 51, 11, 12
Doyle, B.	NA	O	11, 20, 39, 40, 58
Drugge, D.	NA	O	11, 12, 20
Drugge, Dean A.	Seattle	W	11, 20, 58
Eichmeyer, E.	NA	O	11, 20
Ely, Norm	Seattle	W	11, 20, 39, 40, 58
Espinhost, E.	NA	O	11, 38, 23
Evensen, John C.	Seattle	W	20
Evensen, John C.	Seattle	W	20, 11
Evensen, J.	NA	O	20
Faber, Bruce R.	NA	W	58, 40, 11, 14, 12
Fahsholte, Charlie	Seattle	W	20
Fallman, Carole	Tacoma	W	11, 36
Farr, A.	NA	O	11, 58, 20
Farr, Alan	Seattle	W	11, 58
Feldt, V. Stuart	Seattle	W	11, 58
Fillips, Judith and Dale Baker	Renton	W	39, 23, 40, 20
Fletcher, Terry	Seattle	W	11, 36, 40, 24
Foster	NA	O	11
Freed, David	Edmonds	W	11, 12, 23, 39, 58, 40
Gary Krein Press	Arlington	W	20
Geil, B.	NA	O	11

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Geil, J.	NA	O	11, 58
Geil, Judith A.	Seattle	W	11, 12, 39, 40,
Gershon, Brian	Seattle	W	11, 58, 12, 20
Gies, Captain Peter A.	Seattle	W	11, 20
Gill, Clark and Rita	Seattle	W	11, 20, 58, 39
Ginsberg	NA	O	11, 20
Goeldner, Jo	Seattle	W	58, 11, 20
Goodman, R.	NA	O	11, 58, 20
Gould, Paul K.	Seattle	W	23, 37, 40, 20, 58, 11
Govan, Ilsa	Seattle	W	11, 40, 58
Gower, Thelma R.	Bellevue	W	11, 20, 39, 40, 58
Graves, Lynn	Seattle	W	11, 20, 58
Greene, Lindon A.	Seattle	W	20
Griffin, R.	NA	O	59, 11, 60
Griffin, Ray	Renton	W	36, 40, 60, 54
Gulick, Amy	North Bend	W	11, 20, 39, 40, 58
Guthrie, P.	NA	W	11
Habenicht, Fred	NA	W	20, 9
Habenicht, Fred	Port Angeles	W	20, 11
Habernicht, B.	NA	O	9, 20
Habernicht, F.	NA	O	11, 9, 20
Habernicht, G.	NA	O	20
Hagopian, Bill	Seattle	W	11, 20, 39, 58
Hamilton, Herbrt G.	Seattle	W	8, 11, 20, 58
Harder, Dr. Virgil	Seattle	W	11, 20, 64, 36, 58
Harders, Laura	Bellevue	W	11, 20, 39, 40, 58
Harmon, Dana J.	NA	W	20
Harmon, Steven S.	NA	W	20
Hartford	NA	O	20
Hayes, Pat and David	Bellevue	W	11, 12, 20, 40, 37, 61
Hearn, J.	NA	O	20
Henderson, Edward	Seattle	W	58, 30, 40
Hogan, Mary	NA	W	11, 12, 23, 20
Hornung, Jack and Robin Kroll, M.D.	Seattle	W	11, 58
Howe, C.	Shoreline	W	11, 20, 58
Hull, Marvin	Washougal	W	39

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

Commenter Name	City	Written (W) or Oral (O) Comment		Applicable General Comment/Response Number(s)
Hundley, Tom	Seattle	W	11	
Ikstruhs, Ike	Mercer Island	W	20	
Israel, Douglas	Seattle	W	11	
Jaynes, S.	NA	O	11	
Jaynes, Sarah	Seattle	W	11	
Jenkins, MD, Tracy A.	Seattle	W	11, 20, 40, 58	
Johnsen, Mark R.	Seattle	W	11, 20, 12	
Johnson, Nancy	Seattle	W	11, 39, 40, 58	
Johson, Nancy	Seattle	W	11, 20, 12, 39, 40, 58, 30	
Jones, Maynard	Seattle	W	11, 40, 58, 20	
Jones, Robert	Lynnwood	W	11, 40, 58	
Jones, Warren	Seattle	W	11, 58, 20	
Juarez, Anthony D.	NA	W	20	
Kamikawa, John	Bellevue	W	20	
Kamysz	Redmond	W	20, 40, 39, 58	
Katrosick	NA	O	11	
Kay, E.	NA	O	11, 20, 12	
Keene, K.	NA	O	59, 11	
Keene, K.	NA	O	37	
Keesling, Maxine	Woodinville	W	11	
Kehrberg, J.	NA	O	11, 58, 20	
Keizer, Milt	Fall City	W	20	
Kerlic, D.	NA	O	11, 20	
Kiemie, Sieg	Lynnwood	W	11, 20, 30, 40	
Kim, Thomas	Seattle	W	20, 58, 12	
Kinder, D.	NA	O	5, 20, 11, 39	
Kisher, Keith	Roslyn	W	11, 12, 39, 40, 20, 58	
Knowlton, Dale E.	NA	W	20	
Koba, Mas	Seattle	W	14	
Korbecki, Joe	Renton	W	11, 20, 23, 15	
Kraus, Sandra	Seattle	W	11, 20, 40, 58	
Krause, Mary Lou	Seattle	W	11, 39, 40, 20	
Kunkel, Norman	Seattle	W	11, 20, 39, 40, 58	
Kuppinger, C.	NA	O	20	
Kurt F.	NA	W	11, 12, 58, 23, 27, 39, 20	
Kurtz, D.V.M., Russ	Seattle	W	12, 11, 20, 58	
Kusiak, Laura	Renton	W	11, 20, 58	

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<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Larsen, Robert	Bonney Lake	W	20
Lawier, Mark	Seattle	W	11, 58, 12, 20, 45, 39, 40, 51
Lee, J.	NA	O	11
Lee, John A.	Seattle	W	11, 58
Lewis, Greg	NA	W	20
Loe, P.R.	Seattle	W	5
Lorentzen, Doug	Seattle	W	11, 14
Lott, Alan D.	Kirkland	W	11, 20, 39, 40, 58
Lowell, D.	NA	O	58, 11, 20
MacKay	NA	O	20
Mackey, Bill	Mercer Island	W	20
Madrano, Joseph C.	NA	W	20
Mallett, Marc	NA	W	11, 20, 40, 58, 39
Manning, Harvey	Bellevue	W	Comment noted.
Marnti, Joseph	Seattle	W	11, 20, 58
Matheny	NA	O	11, 58, 12, 23, 20, 39
Matherny, P. Brandon	Seattle	W	20, 58, 11
Matts, Ted	Seattle	W	11, 20, 58
May, J.C.	Mercer Island	W	11, 12, 58
McDonald, Andrew	Seattle	W	11
McGrath, Jill and Richard	Seattle	W	11, 20, 39, 40, 58
Gelb			
McGruder, Tim	Kirkland	W	11, 58, 12, 20, 23
McIntyre, Jennifer	Seattle	W	11, 20, 50, 23
McKnight, Susan	Seattle	W	11, 58
McLeod, Ken J.	Bothell	W	20
Melgard, Christian	Seattle	W	20, 58, 11
Menendez, P.	NA	O	11, 58
<a href="mailto:MFMPLM@aol.com">MFMPLM@aol.com</a>	NA	W	20
Miller, Bonnie E.	Seattle	W	58, 20, 11
Molloy, D.	NA	O	11, 58, 20
Moore, D.	NA	O	12, 20, 29
Moore, Dave	Seattle	W	20, 23, 29, 32
Moore, David	Seattle	W	29
Moritis, DDS, Alan E.	Seattle	W	20, 11
Mote, Tanya	Seattle	W	11, 20, 58
Myer, Dr. R Ed	Seattle	W	11, 20, 40, 58

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

Commenter Name	City	Written (W) or Oral (O)	Applicable General Comment/Response
		Comment	Number(s)
Nafziger, C.	NA	O	11, 20, 40
Nakano, Roy	NA	W	20
Nelson, P.	NA	O	11
Nelson, Ph.D., Sara	Seattle	W	11, 20, 58
Nelson, Rebecca and David Braun	Seattle	W	11, 40, 20, 58
Neubauer, Lance A.	NA	W	20
Neuzil, Donna	Bellevue	W	11, 20, 39, 58, 12
Newbold, Ed	Seattle	W	11, 39, 20, 58
Newman, Russell E.	Auburn	W	11
Neyerhouse, Nancy	Puyallup	W	20, 23, 40, 11, 58
Nickum, Ryan	Seattle	W	11, 20, 36
Nickum, Ryan	Seattle	W	11, 20, 39
Olson, Gary	NA	W	11, 58
Olson, Gary R.	Bellevue, WA	W	11, 20, 39, 40, 58
Paden, D.	NA	O	20
Paradigm Studio	Seattle	W	11, 20, 58
Park, A.	NA	O	11, 58
Parker, M.	NA	O	39, 44
Parker, Martha	Renton	W	23, 36, 40, 20, 11, 55
Parks, Donald and Linda	Redmond	W	11, 12, 20, 23, 39, 40, 43, 44, 58
Pasin, Stan	Issaquah	W	11, 20, 36
Pederson, J.	NA	O	11, 20
Peterson, J.	NA	O	20
Peterson, Tyler James	Shoreline	W	11, 20, 12, 36
Phillips	Woodinville	W	11, 20, 39, 40
Pralle, S.	NA	O	11
Pringle, Bruce	Seattle	W	11, 20, 39, 40, 58
Pruzan, Lynn	Seattle	W	11, 23, 39, 40, 58
Pye, Alexandra	Seattle	W	11, 58, 20
Rainbow, Dee Dee	Seattle	W	11, 58
Raines, C.	NA	O	11, 12, 44, 20, 27, 25, 39, 40, 58
Rankin, Steve	Seattle	W	20, 36, 11
Rasmussen	NA	O	11, 58
Rasmussen, Al	Seattle	W	11, 58
Reeb, Mr. and Mrs. Robert	Seattle	W	11, 20, 40, 58
Reese, J.	NA	O	12, 11, 20, 58

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Reiter, Lori	Bellevue	W	11, 20, 40, 58, 39
Rettig, Jim	Woodinville	W	11, 12, 20, 40, 58
Richards, Bill	Seattle	W	23, 20, 11, 31, 39
Riley, L.	NA	O	8
Riley, Lillian	Seattle	W	8
Roberts, Dana and Carol Anne Modena	Port Townsend	W	39, 40
Roberts, Mary J.	Auburn	W	7, 11, 12, 30, 51, 58
Robinson, B.	NA	O	11, 20, 39
Robisch, Paul A.	Seattle	W	11, 20
Romberg, Harry	Seattle	W	11, 58, 12, 23, 20, 34, 39, 40
Rood, Paul	Bellevue	W	11, 12, 58
Ross, Adrienne	Seattle	W	11, 20, 36, 40, 58
Roth, Peter	Seattle	W	11, 20, 36, 58, 40
Rouff, Anthony M.	Renton	W	23, 58
Rousseau, Christine	Seattle	WA	11, 58, 40
Ruh, Gordon, Katina, and Anna	Seattle	W	20
Rumberg, H.	NA	O	11, 20
Rusling, J.	NA	O	20
Rusling, Jay	Yarrow Point	W	20, 7
S/S Sportfishing	NA	W	20
Sailer, Janet	North Bend	W	6, 11, 58
Savage, B.	NA	O	Comment noted.
Savage, Beverly	Bellevue	W	11, 58, 12
Schaetzel, Richard	Woodinville	W	44, 20, 11, 58, 61
Scheevel, Brad	NA	W	20
Schell, William R.	NA	W	20
Schroeder, Mary Clare	Seattle	W	58, 11, 20, 40
Scott, Bonnie L.	Ravensdale	W	11, 20, 39, 40, 58
Seebach, Amanda	Shoreline	W	11, 20, 12, 23, 36
Sellers, Beth	Seattle	W	11, 20
Sheftel, Hildie	Seattle	W	11, 20, 12, 40
Shifffield, James C.	Seattle	W	11, 58
Shook, Paul J.	NA	W	20
Shure, Paul C.	NA	W	11, 20
Simburg, Melvyn	Seattle	W	20, 36, 11, 58
Simm, Dirk	Seattle	W	20



**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Siptroth, Michael J.	Seattle	W	36, 23, 20, 13
Sledziewski, Olga	Seattle	W	11, 58
Slepski, J.	NA	O	20
Slepski, Joseph	Maple Valley	W	20
Snyder, John	NA	W	20
Sokal, David	Seattle	W	11, 12, 40, 20
Sowoxs, Linda	Enumclaw	W	11
Spiral	NA	O	11, 20
Stansbury, S.S.	Seattle	W	23, 20, 11
Stay, A.	NA	O	39, 37, 20
Stockton, Mark	NA	W	8
Stonefelt, Julie	Kirkland	W	11, 12, 20, 23, 36, 39, 40, 58, 62
Sylliaasen, Gordon	Seattle	W	11, 12, 41
Thomas, Karen P.	Seattle	W	11, 20, 58
Thwig, James L.	Seattle	W	11, 58, 12, 20, 36
Tippery, Amy	Seattle	W	20, 11, 58
Urabeck, F.	NA	O	20
Urabeck, F.	NA	O	39, 20
Urabeck, Ms.	NA	O	20
Urbaniak, Roger	Mercer Island	W	20
Vadasy, Patricia	Seattle	W	11, 20, 39, 40, 58
Van Gerve Savage, Lydia	Bellevue	W	11, 58, 20
Venishnick, H.	NA	O	8
Vreeland, Robert	Seattle	W	11, 38, 20, 58
Waggoner	Bellevue	W	11, 12
Waggoner, Paul	NA	W	11
Walker, Thomas	Seattle	W	11, 12, 20, 38, 58
Warberg, Jim	Bellevue	W	20, 11
Wattez, Robert	Vancouver	W	11, 20, 39, 40, 58
Weeks, Cynthia and Don Johnston	Seattle	W	11, 58, 20
Wells	NA	O	20, 30, 23
Weschler, S.	NA	O	11, 40
White, B.	NA	O	11
White, R.	NA	O	20, 30
Whol, Marnie	Seattle	W	11, 58

**Table 4-1.** Individual Commenters and Reference to Corresponding General Comment/Response Number(s)

<b>Commenter Name</b>	<b>City</b>	<b>Written (W) or Oral (O) Comment</b>	<b>Applicable General Comment/Response Number(s)</b>
Wieloh, Jessica	Seattle	W	20, 11, 36
Wilcox, James E.	NA	W	20
Wilcox, Tanja	Seattle	W	11, 58, 12 20
Williams	NA	O	30, 20, 32
Williams, John	Seattle	W	11, 20, 36, 23, 30
Williamson, Bruce	Seattle	W	11, 58
Williamson, Steve	Seattle	W	58, 20
Winkel, Dina	Seattle	W	11, 58, 20
Winters, C.	NA	O	11
Wiren, Harold N.	Seattle	W	11, 20, 23, 58
Witte, Beverly	Seattle	W	11, 20
Wood, Sue	Seattle	W	11, 20, 39, 40, 58



## 5. Detailed Comments and Responses

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This section contains detailed comment letters submitted by federal, state, and local governmental agencies; the Muckleshoot Indian Tribe; interest groups; and two individuals. The level of detail in these comment letters required detailed responses from SPU and the Services. The letters and responses are presented in alphabetical order according to the Commenter Code. See Table 5-1 for a list of the codes, the corresponding commenters, and the page number where each detailed comment letter begins.

Each letter is presented on the left side of the pages. The detailed comments have been labeled with comment numbers (e.g., AR-1). On the right side of the pages, responses for each comment number have been provided.

**Table 5-1.** List of Those Submitting Detailed Comment Letters

<b>Commenter Code</b>	<b>Commenter</b>	<b>Page Number</b>
AR	American Rivers	5-5
CCUD	Coal Creek Utility District	5-9
CNW	Campaign for the Northwest	5-13
COE	U.S. Army Corps of Engineers	5-19
CRC	Cedar River Basin Council	5-45
DOE	Washington State Department of Ecology	5-49
FOE	Friends of the Earth	5-57
IRS	Independent Regional Scientists	5-73
JM	Joe E. Monahan (Former Director of Seattle Water)	5-81
KCE	King County Executive	5-83
KC	King County	5-93
MIT	Muckleshoot Indian Tribe	5-195
MIT-EIS	Muckleshoot Indian Tribe—comments on the Draft EA/EIS	5-201
MIT-HCP	Muckleshoot Indian Tribe—comments on the Draft HCP	5-231
MIT-IF	Muckleshoot Indian Tribe—comments on instream flow strategy	5-269
MIT-JGW	Muckleshoot Indian Tribe—supplemental instream flow material by John G. Williams	5-281
MIT-L1	Muckleshoot Indian Tribe—comments on legal and structural issues	5-307
MIT-L2	Muckleshoot Indian Tribe—specific legal comments on the Draft EA/EIS	5-317
MIT-LWC	Muckleshoot Indian Tribe—Preliminary Draft Lake Washington Chinook Recovery Plan	5-321
MIT-MH	Muckleshoot Indian Tribe—supplemental instream flow material by Mark Hill	5-323
MIT-W	Muckleshoot Indian Tribe—comments on wildlife issues	5-351
MTN	The Mountaineers	5-357
NC	The Nature Conservancy	5-361

**Table 5-1.** List of Those Submitting Detailed Comment Letters

<b>Commenter Code</b>	<b>Commenter</b>	<b>Page Number</b>
NMTA	Northwest Marine Trade Association—Letter 1	5-367
NMTA2	Northwest Marine Trade Association—Letter 2	5-371
NOTAC	North Olympic Timber Action Committee	5-385
PCBP	Pacific Crest Biodiversity Project	5-387
PO	Paul R. Olson	5-401
POWA	Protect Our Watershed Alliance	5-405
R	City of Renton	5-417
SAS	Seattle Audubon Society	5-419
SC	Sierra Club—Cascade Chapter	5-431
SLS	Save Lake Sammamish	5-481
SNOC	Snohomish County	5-487
SWD	Shoreline Water District	5-489
TU	Trout Unlimited	5-491
WCV	Washington Conservation Voters—King County	5-495
WT	Washington Trout	5-497



## 6. Summaries of Public Hearing Transcripts

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Public hearings in compliance with NEPA and SEPA were held January 20, 1999, from 7 p.m. to 10 p.m. at the Woodland Park Zoo Education Center in Seattle, and January 23, 1999, from 10 a.m. to 1 p.m. at the Renton Community Center. These hearings were held to accept formal oral comments on the EA/EIS for the City's proposed HCP. These meetings were announced in various newspapers in the region (Attachment D) and via a Notice of Availability sent to the HCP mailing list of approximately 1,500 interested parties (Attachment B). Meeting attendees signed an attendance list as they entered and also a speakers list if they wanted to offer oral testimony. Comment cards and a drop-off box were provided at the sign-in table for those who wished to submit written comments at the meeting. Participants were then directed to information displays. Staff members were available to answer questions before the hearings formally began. City of Seattle Councilmember Margaret Pageler, Chairperson of the Utilities Committee, attended the Seattle meeting, and Councilmember Richard Conlin, Vice-Chairperson of the Utilities Committee, attended the Renton meeting to listen to the public comments.

Approximately 115 people attended the Seattle meeting, and 48 of those attending spoke for the record. Approximately 57 people attended the Renton meeting, and 32 of those attending spoke for the record. The testimonies of those speaking for the record were captured by a court reporter. The court reporter produced a transcript of each meeting. Sections 6.1 and 6.2 below summarize each speaker's comments as recorded in these transcripts. Each speaker was limited to 3 minutes of testimony to ensure that everyone had the opportunity to speak. Those who wished to offer additional testimony were invited back up to the podium for another 3 minutes after all those on the sign-up sheet had spoken.

## 6.1 Summary of Testimony from the Seattle Public Hearing

**Frank Urabeck, Northwest Marine Trade Association:** Endorse substance of plan. Additional study of juvenile chinook salmon before removing additional water from Cedar River. Endorse preferred alternative with regards to Landsburg and fish hatchery. Move ahead with mitigation package, accelerate the time line with fish passage and habitat improvements.

**Joe Katroscik, Green Party and Earth Save:** Salmon are a canary in the coal mine. Need a healthy salmon population. Water is being taken out and fish. Supports one hundred percent ecological reserve. We need clean pure water.

**Doug Lorentzen:** Proposed HCP alternative 2 will achieve most for City and for watershed. Should also do demonstration projects such as horse logging that could be transferred to private lands.

**Ken Hartford:** Concerned about salmon and water. Sockeye not indigenous. There should not be a sockeye hatchery but one for chinook salmon. Chlorine and fluorine input to water should be cut back.

**Stephanie Matheny, Seattle Audubon Society:** Good plan but amendments needed. Immediate end to all commercial logging. Protect habitat. City should select Watershed Management Option 5. This is a legitimate cost of providing water and amount is minuscule to pay. Road density is high and poses risk to water supply. No commercial logging would free up more than \$4 million now proposed for precommercial thinning that could be used for road removal. Goal should be 2 roads per square mile. Should have a citizen committee to decide which roads to decommission.

Focus on wild and at-risk fish. Sockeye are not native. More emphasis on chinook, bull trout, coho, and steelhead. Therefore opposed to hatchery.

Also supports a moratorium on flows and on new diversion for human use.

**Joe Ginsburg:** Cost involved with alternative WM-5 is minuscule and supports it because it is best protection for water quality. Hatchery will turn out to be just another expensive illegal mistake. It is illegal because the 1978 mandate for 363,000 sockeye is superseded by the Clean Water Act, which basically says that either native or not native. Since these fish are not native we violate the CWA each time we release sockeye into the Cedar River.

**Charlie Raines, Sierra Club:** Support development of HCP but have major problems with the preferred alternative. Support an end to logging because of incredible ecological legacy, strategically located and containing low elevation forests. EIS fails to adequately address take of chinook salmon, not even mentioning it in any sort of quantifiable manner. Believes even the fish ladder will result in take of chinook.

Questions on fish hatchery are answered with vague assurances and not hard data. Encourage City to build a fish passage at Landsburg for wild salmon as soon as possible, increase habitat preservation and restoration for chinook and other wild salmon in the lower Cedar, and to provide for uncertainties in mitigation program. Defer decision on hatchery until certain studies are completed. These would include an interim hatchery, evaluation of cheaper facility at Issaquah hatchery, and effectiveness of interim hatchery.

Prior to signing HCP, City must develop parameters to guide adaptive management so that positive trends in the wild are necessary for any increases in hatchery production. Negative trends automatically trigger reductions.

For flows, cannot allow the river to shrink any further. Therefore, in addition to instream flow in proposal, there should be a cap established on water diversions from the Cedar, and the studies recommended by the Muckleshoot Tribe should be commenced immediately. Increase in water conservation is necessary.

For financing, the mitigation program is in fact a cost of water and using water rates to pay for them is appropriate.

There are a number of places where funds can be shifted from road maintenance and commercial thinning to wild salmon habitat program and road obliteration.

**John Williams:** Introduction of non-native sockeye may have effects on wild fish. There will be competition for habitat by non-native sockeye and kokanee and the latter may be listed. Hatchery therefore is a poor choice.

**Jay Wells:** Oppose building a \$28.5 million hatchery for non-indigenous sockeye. This is a waste of money. Research is unavailable as to whether there will be an effect on chinook, coho, or steelhead. What will be return on this investment? Sockeye could disappear into Lake Washington with no adult returns. Invest money in what we know works—habitat repair, maintaining flows. Hatchery is just a subsidy to sports fishery. Fish hatcheries do not work as evidenced by Washington's program.

**Al Rasmussen:** People of Seattle cherish the watershed. Land does not belong to us, we belong to land. Rate increase is acceptable for no logging.

**Pierre Luigi Colombo:** HCP is a good idea but proposed alternatives are not a good solution. Focus of plan is on sockeye not chinook. To do nothing for chinook, coho, and steelhead is not a good idea. Support an alternative that does more to restore habitat, especially since we will have more problems with the fish ladder because of the hatchery. It will not be as efficient a ladder because sockeye are being stopped and that will reduce the passage of the other fish.

Should not do logging in watershed. Subsidizing water rates through environmental degradation is not a good idea. People should pay the real cost of drinking and using clean, unfiltered water.



City's flow alternative is not a good idea. Surprised there is no alternative except minimum flows which are not backed by sound scientific evidence. Know too little about chinook fry life cycle to think these flows could be adequate.

**Demise Foster:** Kids do not agree with logging and are willing to pay \$3.63 for water. Kids are our legacy. No more commercial logging, one hundred percent ecological reserve.

**David Atcheson, Board President of Pacific Crest Biodiversity Project:** There is an opportunity to let natural processes come back in the watershed. Preserve those that remain and restore those that are not there. We support a one hundred percent ecological reserve. We support flows that mimic natural flows in support of the Muckleshoot Indian Tribe. With respect to hatchery, the dollar values do not indicate that the hatchery is supplemental to habitat restoration. The expenditures should be reversed.

People will be willing to pay the rate increase. Seattle should reduce fiber consumption so the wood from the watershed is not necessary.

**Spiral:** Do not support logging in the watershed or construction of the fish hatchery. How will the decision be made? Is outcome up to the people? Or will it be like the stadium? Instead of hatchery we should put the money into native species like coho, Chinook, and steelhead.

**Patrick Menendez:** We should not log the watershed. People that use more water should pay a higher rate.

**Craig Winters:** Is a member of Earth Save and founding president of Citizens for Health but is speaking for himself. There should be no more logging in the watershed. Should be considering hemp production rather than wood because it grows faster. Legalize hemp for industrial purposes.

**Andy Paik:** In favor of the no logging alternative. The idea of cutting trees to generate revenue is ridiculous. Should not consider other water rate increases in the future because if we need something in the future that is for the people in the future to justify.

**Andy Backus:** Represents the fish business in Ballard. Believes in development, but thinks it is more important to preserve what is left. Logging is inconceivable considering the other proposed ideas in the immediate area such as the pipeline, gold mining along I-90 corridor.

**Peter Nelsen, representing Protect Our Watershed Alliance:** Whereas commercial logging can negatively impact water quality, potential increase water costs, destroy future old growth habitat and some of remaining lowland habitat, potentially harm countless numbers of plants and animal species, and whereas unlogged forests act as natural reservoirs and filters insuring high quality drinking water, the Protect Our Watershed Alliance requests that the City of Seattle immediately and permanently end commercial

logging in the watershed and create a one hundred percent ecological reserve. The City should support alternative WM-5 and include it in the 50- year plan.

**Harry Romberg:** Supports ending commercial logging in the watershed. Supports fish passage at Landsburg for chinook, coho, and steelhead. Has a grave concern about the carrying capacity of Lake Washington for sockeye such that at least the size of the hatchery is questionable. It is worth further study before spending \$28 million.

Should be increased funding for lower Cedar River habitat.

**Gretchen Kehrberg:** Support alternative 5, one hundred percent reserve. Small cost of rate increase is acceptable. Also have concerns about spending money on a hatchery for non-native sockeye.

**John Peterson, water access chairman of Seattle Pogy Club:** In favor of the hatchery. The group does not think salmon fisheries can be restored without hatcheries. The key to salmon survival is harvest though we do not have control over that.

**Roy Goodman:** Let's preserve the watershed for future generations. Strong advocate of no logging. Though some people may not be able to pay the rate increase, he is willing to pay double to help people who cannot. He does not support the hatchery. It will manufacture inferior fish.

**Dana Cowell:** Concerned that the special interest groups will have a say and that the larger group of people might not be represented. Supports managing resources. Water is a managed resource and people can pay. The sockeye hatchery can also be managed. Supports the ladder at Landsburg. Supports the no logging alternative.

**Lawrence Molloy, member of the board of Washington Conservation Voters, King County:** The environmental community has been hesitant to support HCPs; this is not true with SPU's Cedar River HCP. It is a breakthrough and a model. Our ultimate concern is to protect chinook salmon in compliance with the ESA. There should be no commercial logging and there is need for further habitat protection. We believe a rate increase is the best option for funding the HCP. To protect low income families and provide an incentive to conserve water, the cost of the HCP should be integrated into the second rate block.

The Muckleshoot Indian Tribe and others argue that the proposed flows will not meet the intent of the ESA. We support the Muckleshoot Indian Tribe's request for an additional 5-year study.

**Sarah Jaynes:** Supports no commercial logging of watershed for the primary purpose of financial revenue to finance HCP.

**Bill Mackay:** Strongly supports the HCP. Supports hatchery option. Experts will tell you this is the only way to enjoy a sockeye fishery in the lake. That fishery has an immense economic and social impact on the region. Without the hatchery there will be no annual sockeye season.

**Bill Becker:** Against hatchery. Happy to pay extra money for water. Especially concerned about erosion on logging roads. There is also the question of fog drip. This tends to mitigate the boom and bust cycle of water.

**Jay Rusling:** Salmon are in a precipitous decline. High sounding arguments but salmon continue to decline. The hatchery would be built responsibly. We have been studying this for 15 years. The public interest demands that we get on with this.

**Dave Paden:** Member of Puget Sound Anglers. The mitigation the City must do is for above Landsburg Dam, not for below it. The property below Landsburg Dam is the responsibility of King County. Habitat restoration is great but do we start with the Boeing Renton Plant or the Boeing airport? Firmly supports ladder over Landsburg. The carrying capacity of Lake Washington is well proven in the past when we had runs upward of 650,000 fish.

**Dave Kerlic:** No more logging in watershed. At ten times the price we should do it.

**Jack Ballard:** With Puget Sound Anglers. Genetic problems with wild fish are unlikely to occur because there are so few wild fish.

**Erica Kay:** One hundred percent reserve is the preferred alternative. No commercial logging. Does not support the hatchery.

**John Reese:** Opposes the hatchery. The money should be spent for restoration of wild fish. Reduce roads by at least 50 percent.

**Dave Moore:** For getting rid of roads and phasing out logging quickly. Opposed to sockeye hatchery. To get 350,000 sockeye we should reduce the escapement level.

**Lillian Riley:** What further steps of mitigation could be made within the City of Seattle fish migration route? More could be done for safe passage in the Ship Canal and into Lake Washington. The City's land use code should be changed to protect the life cycle of those fish that pass through the urban waterways.

**Chuck Nafziger:** With Groundswell Northwest, a Ballard group for parks and open space. A 50- year plan is scary. We do not know enough about fish and global warming so how can we plan for 50 years? There should be no logging. There should be no hatchery. It is subsidizing one fish. There is too little money for conservation and education. Education is very important. We have to stop the development of riparian zones.

**Brent White:** Grateful to the Seattle Tenant's Union for representing the basic needs of renters like me by supporting the no cut alternative.

**Judith Geil:** Supports Plan 5 and included a check for \$3.50 as statement of support.

**Bill Geil:** Important to have one place left in the world that is not open to logging.

**Peter Carlin:** Supports paying for the plan with strongly tiered water rates. I support no logging. Willing to pay \$3.00.

IF-2 flows are better than IF-I. Favors a clause that if it's determined that additional flows help ESA listed species, the HCP minimum is not a maximum.

**Jim Pedersen:** In favor of no logging.

**Bill Doyle:** Favors alternative proposed by the Sierra Club except for the hatchery. We should not do anything that favors hatchery fish over wild salmon.

We must cap diversions. Establish one rate for the water for the average family and have graduated rates for higher use.

**Stewart Wechsler:** Let's save water for drinking, fish, and frogs not for lawns and golf courses.

**Bill Robinson, executive director of Washington Council of Trout Unlimited:** Fully supports no commercial logging in the watershed, decommissioning as many logging roads as possible. Only ecological thinning is acceptable.

Supports development of fish passage as soon as possible.

Fully supports the option for the hatchery. These nonindigenous fish provide a wonderful opportunity for a local economic jolt, including money for fish and wildlife.

Water is a key habitat for fish. Supports the Muckleshoot Tribe and particularly the outmigration flows in late spring and early summer. They need to be increased for the benefit of chinook.

**Ray White:** He is a fishery biologist and avid fisherman. Does not think we know if the hatchery is a good idea or not. Study of an interim hatchery is needed. The first major results from that study are not in yet. To get a good result may take 10 or 12 years.

There are serious questions about the capacity of Lake Washington to support enormous influx of sockeye every year. Decision on hatchery would be premature at best.

There is an urgent need for habitat restoration. Corp of Engineers should pay for all modifications required at the Ballard Locks to meet ESA obligations. The City's contribution for the Ballard Locks should be used for habitat restoration.

**Sarah Pralle:** We have opportunity to preserve a wild place.

**Dean Drugge:** Do not support logging in watershed. Also encourage obliterating as many roads as possible. Seems like the hatchery money could be used for restoration. Let King County or someone else pay for hatchery.

## 6.2 Summary of Testimony from the Renton Public Hearing

**Herb Ahten:** Opportunity to promote the sockeye fishery in Lake Washington while enhancing for other fish such as chinook, coho, and steelhead.

**Alan Stay, presenting on behalf of Muckleshoot Indian Tribe:** Muckleshoot Indian Tribe does not support the City's proposed instream flow alternative. The City's proposed flows are lower than the higher flows actually present in the river during spring and winter. Studies on Cedar River suggest these flows are important for fish in river and throughout Lake Washington and into Puget Sound. Proposed minimum flows and extra supplements are important in dry periods but are not enough. The high flows have not been shown to be in excess of fish needs in the river, Lake Washington, the Ballard Locks, and Salmon Bay. Growing evidence shows high flows benefit survival during key stages of outmigration. The Tribe asks the City to cap water withdrawals and to protect what remains unless further storage and diversion will not harm fish. This alternative must be considered by the City, and it has not. Too much uncertainty remains. Flow proposal was formulated without specific information from Cedar River itself, as juveniles from emergence to lake residence, to seaward migration survival. No one is certain if there is sufficient information and water to protect those fish.

The Tribe is supportive with respect to the sockeye hatchery. This preferred alternative is necessary to meet preexisting obligations for the City to mitigate for Landsburg Dam.

Restoration of healthy and harvestable fish runs require a combination of habitat protection and restoration, together with careful monitoring and supplemental techniques as well. Habitat restoration in lower river will not alone produce healthy and harvestable runs given existing levels of habitat loss and development in the basin.

**Alan Farr, representing the Mountaineers:** Primary goal of Cedar River area should be maximum protection of forest and preservation of the indigenous and anadromous fish species. Mountaineers supports a no-cut policy. We believe that people can afford the \$3.63 rate increase. Support maximum efforts to restore habitat for wild salmon. At this time we cannot support construction of the proposed hatchery until the impact on wild salmon runs are addressed to that those runs are fully protected. Need more scientific data on this latter issue.

**John Evenson:** Support the hatchery for sockeye salmon. It will work and bring money and recreation to people of the area.

**Fred Habernich:** All the responses are based on the theoretical. It is a trail we can ill afford. The approach that will work is AFM-2. Habitat restoration is sometimes warranted but the upper Cedar is pristine. Factors outside the jurisdiction of the City must be considered such as predation by marine mammals and other species, high seas fishing, over commercialization of the inner Sound, and natural events such as floods which wash

out spawning gravels. History in Alaska, British Columbia, Washington, Oregon has proven that the approach will work. It will also stave off federal intervention and provide recreation.

**Jim Hearn:** Endorses the HCP, specifically AFM-2. Black River before diversion has five runs of salmon. Dr. Donaldson told me that he brought these sockeye from the Quesnel River in British Columbia, hatched them at the University and then turned them loose. Sockeye may also have come from Baker Lake. Wherever they come from, they have same genetic composition so there cannot be genetic dilution from the hatchery. We need these healthy runs for the Muckleshoot Indian Tribe economy and local businesses, and the wildlife needs the funds from licenses.

**Eric Espinhorst:** Works for Friends of the Earth. Urges the City to go to no logging. Providing as natural a hydrograph as possible, capping diversions at the past few years, increasing the spring freshet, is key. You did not even study an alternative that would do that. The hatchery itself will not protect fish.

**Kurt Beardslee, executive director of Washington Trout:** We are here to ask for more time to review these documents so we can provide technical comments. We asked for 60 days in writing and I would like to ask for 90 days.

**John Lee:** Thinks the plan should be adopted, but the City should not make its decision based on the economics of how much money is going to be generated. There is an opportunity for forestry that is not driven by commercial factors. Would oppose the proposed alternative because of some of the prescriptions it has for forest management. City should consider a true sustainable use of some of this forested area. There should be further restrictions on high elevation and low site quality. There should be a third party to review activities and certify the forestry practices there.

**George Bearwood:** Supports AFM-2 and construction of sockeye fish hatchery. These fish will be wild because the eggs will be taken from fish in the river.

**Dave Paden:** Strongly supports HCP AFM-2 for the sockeye hatchery. The hatchery is a contract between the City and State of Washington to mitigate for Landsburg. This will be the largest single run of salmon in the Pacific Northwest. Sockeye are native to Lake Washington. The City will be spending money on downstream habitat but the hatchery is mitigation for upstream habitat.

**Gary Habenicht, representing the Maple Valley Rotary Club:** We are involved with Cedar River. Rotary Club is in favor of the HCP primarily because of the recreational activities it provides for students. Secondly there will be economic benefit. From his personal anecdotal viewpoint, the river has been lower in the past and yet there was a magnificent fishery. Supports the hatchery personally.

**Ms. Urabeck:** Sockeye fishing is one of the best family recreations. Thinks we should look at the hatchery and habitat working together.

**Brad Habernicht:** Cedar River is very pure. The problem for fish is in the ocean, maybe in the lake. Supports the City's proposal, AFM-2.

**Cliff Kuppinger:** Supports the sockeye hatchery because the sockeye fishery in Lake Washington is a tremendous economic boost. Does not think the hatchery will degrade the other runs.

**Frank Urabeck, representing Northwest Marine Trade Association, State Council of Trout Unlimited, and himself:** Adding to comments he gave at Woodland Park. We are fully in support of the sockeye hatchery. Feels that the comments from the environmental groups were based on emotion and did not speak to the technical issues relative to the hatchery and habitat. Besides the ESA issues, there is an obligation under state law for the sockeye mitigation. The final documents should make that more clear. To get fish back we need a combination of habitat and hatchery.

**Bill Conley:** Owns a fish shop in Issaquah, is a member of the Issaquah City Council, and has been working with Friends of the Issaquah Salmon Hatchery. We have had good success with that hatchery. Habitat and Northwest culture are also important. We also have to take responsibility for adequate flows. The hatchery is needed. Also some ability here for education.

**Ray Griffin:** He is a taxpayer and water commissioner. Thinks we are going too fast on this. Remembers seeing fish stranded on the rocks so it frosts him that people say you have to have more water for fish. People also need water. Would like to see some logging to help pay for this so taxpayers are not going to have to pay.

**Joe Slepski, representing Crown Limited:** We need to protect environment and ecosystems around streams. We need to have hatcheries to be successful.

**Kathy Keene, water commissioner for Water District 20 in Burien, some of SeaTac, some of Tukwila, and unincorporated King County:** The HCP is an excellent idea but there should not be rate increases coming from the City. This is just a small part of what will happen to water rates in the future. There is the Tolt filtration system to pay for. There may be a need for an ozonator and/or filtration system on the Cedar River. There is the cost of water conservation. There is the cost of finding new water either through the Tacoma/Fife pipeline or through the Cascade Water Alliance. Therefore the HCP should be paid for through logging. The forest management techniques of SPU are terrific.

**Richard Brocksmitth, fisheries biologist, University of Washington:** Here to voice support for the AFM4 alternative which would defer the decision on the sockeye hatchery until a later date. There are multiple reasons for delaying the decisions. Has studied Lake Washington for 4 or 5 years. First, over the next 3 or 4 years, we will gain hard evidence as to the success of the supplementation project. We do not really have any data on that right now. Second, we lack data to accurately determine survival of supplemented sockeye in the lake environment. The science suggests that the lake may not be able to

support 34 million sockeye fry due to its seasonal lack in food supply. Current information also suggests we may be decreasing the long-term sustainability of supplementation through increased predator growth in abundance. The predator increase may be exacerbated by recent changes in spawning environment of the major planktivore in the lake, that is the long thin smelt due to the dredging of the lower Cedar River.

**Dyche Kinder:** Not entirely satisfied that the full hatchery is justified at this time. Supports the no logging alternative. The monitoring provisions could be stronger. Requests that the Fish and Wildlife Service pay attention to the comments made at these hearings. Has participated in other HCPs where the comments were ignored.

Nobody has called into question the HCP process itself. An article in *Audubon* magazine elicited a response from a biologist who is conservation chair for the 2,200 member Society of Integrative and Comparative Biology [Frasier Schilling] which opposes HCPs. The environmentalists who support this have an incomplete understanding of incidental take permits, HCPs, no surprises, and a variety of related instruments.

Finally, more work needs to be done on flows.

**Martha Parker:** Agrees with the gentleman from the Muckleshoot Indian Tribe. Look at this graph that they used in a paper they just put out. Has been told that the Cedar River cannot be counted on for spring runoff. She disagrees. U.S. Geological Survey Water-Supply Paper 313 shows that from 1895 to 1905 there was a spring runoff indicated. Thirteen of seventeen bars show a necessity for water in the spring for fish. So would like to see a bump in flows in the spring.

**Beverly Savage:** She is a biologist speaking for herself. Supports doing something like a HCP. The river is not a natural river anymore because of logging and control of water flow. Interest for fish is as part of a total watershed ecosystem habitat, not as part of a cash cow. The 500 miles of logging roads are incredibly destructive. In favor of being careful of decision on hatchery. The fish ladder at Landsburg is necessary.

**Homer Venishnick:** The kokanee in the lake is now gone. He remembers the long thin smelt. You have a bomb about ready to go off - the drainage from the garbage dump. It comes down May Creek. Salmon habitat is gone from the dredging of Lake Washington in front of the Boeing plant.

**Ray Griffin:** Had to get up and speak again after listening to the water commissioner from District 20. He is also a water commissioner from District 20. According to what he's read, about 40 percent of the people in King County are on water wells and will not be paying for this HCP. If it is going to benefit everybody, then everybody should pay. The City is also going to raise water rates at least four or five fold in the next 5 years. And these are cost increases without the HCP.

**Ezra Eichmeyer:** We have yet to demonstrate or prove that logging can improve habitat or even not affect it negatively. Logging cannot make the water quality better. But we do



not have to lose logging either. Why not test that first and prove it but let's not test in the Cedar River Watershed. Also against the hatcheries.

**John Evansen:** Remembers a hatchery built on Calder Creek for chum salmon. The Fisheries Department trapped the last big chum there and killed them and the native run. The reason was they interfered with the production of more desirable species. Thinks the hatchery on the Cedar River is a good idea. The decision-makers should make the decision carefully at the data and where it comes from.

**Frank Urabeck:** Thank you for the opportunity to speak again. Confused about the supposedly dramatic loss in spring flows. The spring snowmelt would seem to produce high spring flows, so they must have existed. There were still terrific salmon runs from the 1930s to the 1960s even during World War II when the City put copper sulfate into the river to get rid of algae because they were afraid that the Japanese or the Germans would poison us, and this stripped the river of its food base.

What has been done in the upper watershed for the last 50 years has been done properly.

Wants to make it clear that we are not making a decision to build a hatchery tomorrow but a decision to retain the option to build a full-sized hatchery and the go/no go decision is probably 2 or 3 years away. The studies on Lake Washington will be available in 1999.

**Kathy Keene:** Wants to close with a thought for an alternative to the instream flow problems. This is a project being talked about by the county - that is using water from Lake Washington for drinking water and recharging the lake with reused water which is secondarily treated from sewage plants. This is being done in many areas and may be a viable alternative and very inexpensive way to get water to save fish.



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**Attachment A**  
**Document Distribution List**

The Draft Habitat Conservation Plan, Draft Environmental Assessment/Environmental Impact Statement, Technical Appendices, Map Resources, and Executive Summary to the Draft HCP and Draft EA/EIS were sent to the recipients in the attached distribution list.

**Attachment B**  
**Notice of Availability**

The Notice of Availability (NOA) announcing the release of the HCP documents on December 10, 1998, was sent to the full HCP mailing list of approximately 1,500 interested parties. The NOA (attached) also described the original 60-day comment period from December 10, 1998, to February 10, 1999 (later extended to March 1, 1999), provided information on the public meetings and hearings, and provided the address for submitting written comments.

## **Attachment C**

### **Federal and SEPA Register Publication**

The release of the Draft EA/EIS and related documents was announced in the Federal Register in compliance with NEPA and published on December 11, 1998. A copy of the listing is attached. The release of the Draft EA/EIS and related documents was also announced in the Washington State SEPA Register in compliance with SEPA. A printout of the database entry is also attached.

## **Attachment D**

### **Legal Notices and Advertisements**

In compliance with the City of Seattle SEPA ordinance, the release of the EA/EIS and related documents was communicated via a legal notice in the City's paper of record, *The Daily Journal of Commerce* on the release date of December 10, 1998. Legal notices and/or advertisements announcing the release of the EA/EIS and related documents also appeared the week of December 10, 1998, in *The Seattle Times/Post Intelligencer*, *The South County Journal*, *The Eastside Journal*, *The Valley Record*, *The Renton Reporter*, and *Voice of the Valley*. Proof of publication is attached for each of these newspapers.

**Attachment E**  
**Citizen Summary Mailing**

This attached summary was sent to the full HCP mailing list of approximately 1,500 interested parties. Extras were available at both the public workshops and the public hearings.

## **Attachment F**

### **Description of Public Workshops and Materials**

#### **Workshop Summary**

In January 1999, a series of four public workshops was held over a 10-day period in January in the greater Seattle area to inform the public and solicit their opinion on the proposed Cedar River Habitat Conservation Plan (HCP). The workshops drew over 1,400 people and attracted considerable media interest. The workshops followed a panel discussion format, which included a mix of formal presentations, panel discussions, and questions and answers. The meeting agenda is attached. Formal testimony on the EA/EIS and related documents was not accepted at these workshops (this was reserved for the two NEPA/SEPA public hearings on January 20 and 23), but citizens were provided with the opportunity for informal comment. A comment card is attached. The meetings were publicized via the media and a notice sent to the full HCP mailing list of approximately 1,500 interested parties.

The workshop schedule was meant to accommodate the public review schedule and the logistical constraints of staging four workshops within a relatively short time period. The general locations were distributed throughout the Seattle area to reach a diversity of public interests.

Workshop dates, times, and locations were:

Tuesday, January 5, 1999

Program: 7:00 - 9:30 PM

Open House: 6:00 - 7:00 PM

CARCO Theater, Renton

1717 Maple Valley Highway

Saturday, January 9, 1999

Program: 9:30 AM - 12 PM

Open House: 8:30 - 9:30 AM

Bellevue Community College Theater

3000 Landerholm Circle SE, Bellevue

Tuesday, January 12, 1999

Program: 7:00 - 9:30 PM

Open House: 6:00 - 7:00 PM

Brockey Student Center, Room A

South Seattle Comm. College, Seattle

Tuesday, January 14, 1999  
Program: 7:00 - 9:30 PM  
Open House: 6:00 - 7:00 PM  
Kane Hall, Room 220  
University of Washington, Seattle

### **Workshop and Steering Committee Background**

These workshops were the result of a significant amount of planning and preparation by a Steering Committee initiated by Seattle Public Utilities (SPU). The Director of SPU, Diana Gale, directed SPU staff to form a Steering Committee and work with that committee to organize a series of workshops to familiarize Seattle-area residents with HCP issues and proposed actions, the underlying data and analysis, and the decision-making process. SPU invited key individuals representing a diversity of public interests to serve on the Steering Committee to plan and implement the workshops. The decision of who and how many people to include on the Steering Committee was driven by the goal of achieving diversity and representation, but not at the expense of efficient planning and execution. The committee included representatives of public interest groups, business interests, city agency, Tribes, and drinking water suppliers. A total of 12 individuals representing 9 distinct stakeholder groups were represented on the Steering Committee:

Isabel Tinoco (Muckleshoot Tribe)  
Eric Warner (Muckleshoot Tribe)  
Dave Paden (Puget Sound Anglers)  
Charlie Raines (Sierra Club)  
Jasmine Minbashian (Protect Our Watershed Alliance)  
Ron Sheadel (Water Purveyor Committee)  
Gwen Maxfield (Interim Water Group)  
Frank Urabeck (Trout Unlimited)  
Matt Lincecum (Seattle Public Utilities)  
Cleve Steward (Workshop Coordinator)  
Susan Hall (Greater Seattle Chamber of Commerce)  
Mickey Fearn (Steering Committee Facilitator)

The Steering Committee was an important resource for ideas and guidance. Since the committee was composed of public and government representatives, as well as representatives of diverse groups, it was able to represent and effectively communicate with the larger public. This committee met for the first time in May 1998. Over the course of several meetings, the committee combined various views on workshop purpose and need into three “Workshop Aims”:

- To increase public awareness of the HCP for the Cedar River watershed;
- To provide participants with up-to-date information on the HCP and associated decision-making processes and timelines; and
- To provide an opportunity for decision makers, stakeholders, and concerned citizens to exchange information, engage in public debate, and express their individual and collective opinions on the Cedar River watershed's future, as affected by the Cedar River HCP.

The Steering Committee considered two general workshop formats. One approach would rely on facilitated break-out sessions, while the other would be based on moderated panel discussions. The Steering Committee opted for the panel discussion format, which would be a mix of formal presentations, panel discussions, and questions and answers.

The committee determined that a moderator would be needed to facilitate the meeting and question-and-answer session, as well as a presenter to provide up-to-date information on the HCP. They also agreed that a six-person panel, representing six separate entities ("points of view"), should be present on stage to respond to each issue: SPU, Muckleshoot Tribe, Environmental Perspective #1, Environmental Perspective #2, Fisheries, and Water Purveyors. Appropriate representatives were identified for each entity. A table describing the panelists at each of the workshops is displayed below.

**Table F-1. Workshop Panelists**

<b>Organization/Agency</b>	<b>Panel #1</b>	<b>Panel #2</b>	<b>Panel #3</b>	<b>Panel #4</b>
	<b>Jan. 12, 1999</b>	<b>Jan. 14, 1999</b>	<b>Jan. 19, 1999</b>	<b>Jan. 23, 1999</b>
1. Seattle Public Utilities	Martin Baker/ Suzy Flagor	Martin Baker/ Suzy Flagor	Martin Baker/ Suzy Flagor	Martin Baker/ Suzy Flagor
1. Muckleshoot Tribe	Holly Cocolli	Holly Cocolli	Holly Cocolli	Holly Cocolli
2. Environmental Perspective #1	Charlie Raines	Charlie Raines	Charlie Raines	Charlie Raines
3. Environmental Perspective #2	Jasmine Minbashian	Jasmine Minbashian	Jasmine Minbashian	Jasmine Minbashian
4. Fisheries	Frank Urabeck/ Dave Paden	Frank Urabeck/ Dave Paden	Frank Urabeck/ Dave Paden	Frank Urabeck/ Dave Paden
5. Water Purveyors	Dick Jonson	Lloyd Warren	Ron Spear	Walt Canter



## **Attachment G**

### **Mailings and Materials Associated with Public Hearings**

Two public hearings were held as part of the official comment period on the Draft EA/EIS for the HCP. Formal oral and written comment was accepted at these meetings; oral testimony was recorded by a court reporter, who produced written transcripts of the meeting. The meetings times and locations were:

Wednesday, January 20, 1999

7 PM - 10 PM

Woodland Park Zoo Education Center

700 North 50<sup>th</sup> Street

Seattle, WA 98103

Saturday, January 23, 1999

10 AM to 1 PM

Renton Community Center

1715 Maple Valley Highway (State Route 169)

Renton, WA 98055

In addition to the advertisements and legal notices announcing the release of the EA/EIS, the public meeting dates, and the public hearing dates (Attachment D), SPU sent a Notice of Public Hearings brochure to the full HCP mailing list of approximately 1,500 interested parties. This brochure is attached. The public comment card distributed at the public hearings is also attached, as are project fact sheets that were available at the public hearings.

## **Attachment H**

### **Notice of Extension of Public Comment Period**

Because of public requests, the original 60-day comment period on the EA/EIS from December 10, 1998, to February 10, 1999, was extended 18 days to March 1, 1999. A notice of this extension of the original 60-day comment period was sent to the full HCP mailing list of approximately 1,500 interested parties. The notice (postcard) is attached.

## **Attachment I**

### **Additions to Technical Appendix Volume**

The following attachments will be added to the Technical Appendix volume when it is republished with the HCP:

- Addition to Technical Appendix 7, Sockeye Hatchery Conceptual Design. Montgomery Watson. 1996.
- New Technical Appendix 29, Water Conservation Potential Assessment, Executive Summary. Seattle Public Utilities. May 1998.
- New Technical Appendix 30, Regional Water Conservation Accomplishments, 1990-1998. Seattle Public Utilities and Purveyor Partners. 1998.
- New Technical Appendix 31, City Ordinance #115204.
- New Technical Appendix 32, Notes from the February 11, 1999 Sockeye Technical Committee.
- New Technical Appendix 33, Statements received in response to requests regarding applicability of IFIM and extent of present use.